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## Ultrafast Light-Driven Nanomotors Based on an Acridane Stator

Kulago, Artem A.; Mes, Emile M.; Klok, Martin; Meetsma, Auke; Brouwer, A.M.; Feringa, Ben L.

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2009-09-14 # Formatted by publCIF
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# 1. SUBMISSION DETAILS

_publ_contact_author_name          # Name  of author for correspondence
;
  Drs. A. Meetsma
;
_publ_contact_author_address       # Address of author for correspondence
;
  Crystal Structure Center,
  Chemical Physics,
  Materials Science Center,
  University of Groningen,
  Nijenborgh 4,
  NL-9747 AG Groningen,
  The Netherlands.
;
_publ_contact_author_email         A.Meetsma@rug.nl
_publ_contact_author_fax          '+31 50 3634441'
_publ_contact_author_phone        '+31 50 3634368'

_publ_requested_journal            'Journal of Organic Chemistry'
# Publication choose FI, CI or EI for Inorganic
#                               FM, CM or EM for Metal-organic
#                               FO, CO or EO for Organic
_publ_requested_category           ?
_publ_requested_coeditor_name      ?

_publ_contact_letter               # Include date of submission
;
  Date of submission :  2009-09-14  12:09:23

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  X-ray structure of a manuscript to be submitted to :
    Journal of Organic Chemistry

(Our Compound_Identification_Code : Q1141)
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# 2. PROCESSING SUMMARY (JOURNAL OFFICE ONLY)

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_journal_date_proofs_in            ?

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_journal_coeditor_notes
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_journal_coden_ASTM                ?
_journal_name_full                  ?
_journal_year                       ?
_journal_volume                     ?
_journal_issue                      ?
_journal_page_first                 ?
_journal_page_last                  ?

_journal_suppl_publ_number          ?
_journal_suppl_publ_pages           ?
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# 3. TITLE AND AUTHOR LIST

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Title (type here to add)
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_publ_section_title_footnote
.
```

# The loop structure below should contain the names and addresses of all  
# authors, in the required order of publication. Repeat as necessary.

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  _publ_author_name
  _publ_author_footnote
  _publ_author_address
  '?' # author name
;    # author related footnote
;
;    # Address of this author
```

```

;
    'Meetsma, Auke'
;
? # author related footnote
;
;
    Crystal Structure Center,
    Chemical Physics,
    Materials Science Center,
    University of Groningen,
    Nijenborgh 4,
    NL-9747 AG Groningen,
    The Netherlands.
;

#=====

# 4. TEXT

_publ_section_synopsis
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_publ_section_abstract
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(type here to add)
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_publ_section_exptl_prep
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(type here to add preparation details)
;
_publ_section_exptl_refinement
;
(type here to add refinement details)
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;
Allen, F. H. (2000). <i>Acta Cryst.</i> B58, 380--388.

Bondi, A. (1964). <i>J. Phys. Chem.</i> 68, 441--451.

Bruker, (2001). <i>SMART</i>, SAINTPLUS and <i>XPREP</i>. Software Reference
Manual Bruker AXS Inc. Madison, Wisconsin, USA.

Burla, M. C., Caliendo, R., Camalli, M., Carrozzini, B., Cascarano, G. L., De
Caro, L., Giacovazzo, C., Polidori, G. & Spagna, R. (2005). <i>SIR2004</i>. An
improved tool for crystal structure determination and refinement. J. Appl.
Cryst. 38, 381-388.

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Space-group symmetry, Kluwer Academic Publishers, Dordrecht, The Netherlands.

Le Page, Y. (1987). <i>J. Appl. Cryst.</i> 20, 264--269.

```

Le Page, Y. (1988). *J. Appl. Cryst.* **21**, 983--984.

Meetsma, A. (2005). Extended version of the program *PLUTO*. University of Groningen, The Netherlands. (unpublished).

Sheldrick, G. M. (1997). *SHELXL97*. Program for Crystal Structure Refinement. University of Göttingen, Germany.

Sheldrick, G. M. (2001). *SADABS*. Version 2.03. Multi-Scan Absorption Correction Program. University of Göttingen, Germany.

Spek, A. L. (1988). *J. Appl. Cryst.* **21**, 578--579.

Spek, A. L. (2003). *J. Appl. Cryst.* **36**, 7--13.

Wilson, A. J. C. (1992). *International Tables for Crystallography*, Volume C, Kluwer Academic Publishers, Dordrecht, The Netherlands.

;

\_publ\_section\_figure\_captions

;

Fig. 1. Perspective *PLUTO* drawing of the molecule illustrating the configuration and the adopted numbering scheme.

Fig. 2. Molecular packing viewed down unit cell axes.

Fig. 3. Perspective *ORTEP* drawing of the title compound. Displacement ellipsoids for non-H are represented at the 50% probability level. The H-atoms have been omitted to improve clarity.

;

#=====

## # 5. CHEMICAL DATA

\_chemical\_name\_systematic

;

;

\_chemical\_name\_common ?

\_chemical\_melting\_point ?

\_chemical\_formula\_moiety

'C33 H31 N O3'

# Ex: 'C12 H16 N2 O6, H2 O' and '(Cd 2+)<sub>3</sub>, (C6 N6 Cr 3-)<sub>2</sub>, 2(H2 O)'

\_chemical\_formula\_structural ?

\_chemical\_formula\_sum

'C33 H31 N O3'

\_chemical\_formula\_iupac ?

\_chemical\_formula\_weight 489.61

\_chemical\_compound\_source 'see text'

loop\_

\_atom\_type\_symbol

\_atom\_type\_description

\_atom\_type\_scatter\_dispersion\_real

\_atom\_type\_scatter\_dispersion\_imag

\_atom\_type\_scatter\_source

O O 0.0106 0.0060

'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

```

N    N    0.0061    0.0033
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
H    H    0.0000    0.0000
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
C    C    0.0033    0.0016
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

```

```

#=====

```

# ``` # 6. CRYSTAL DATA ```

```

_symmetry_cell_setting      Monoclinic
_symmetry_space_group_name_Hall  '-P 2ybc'
_symmetry_space_group_name_H-M   'P 21/c'
_symmetry_Int_Tables_number      14

```

```

loop_
_symmetry_equiv_pos_site_id
_symmetry_equiv_pos_as_xyz
  1 x,y,z
  2 -x,1/2+y,1/2-z
  3 -x,-y,-z
  4 x,1/2-y,1/2+z

```

```

_cell_length_a              9.020(2)
_cell_length_b              18.831(3)
_cell_length_c              30.265(5)
_cell_angle_alpha           90
_cell_angle_beta            95.108(3)
_cell_angle_gamma           90
_cell_volume                5120.3(16)
_cell_formula_units_Z       8

```

```

_cell_measurement_temperature 100(1)
_cell_measurement_reflns_used  5340
_cell_measurement_theta_min    2.51
_cell_measurement_theta_max    27.49
_cell_special_details

```

```

;
```

The final unit cell was obtained from the xyz centroids of 5340 reflections after integration using the SAINTPLUS software package (Bruker, 2000).

Reduced cell calculations did not indicate any higher metric lattice symmetry and examination of the final atomic coordinates of the structure did not yield extra symmetry elements (Spek, 1988; Le Page 1987, 1988)

```

;
```

```

_exptl_crystal_description    'needle'
_exptl_crystal_colour         'yellow'
_exptl_crystal_size_max       0.54
_exptl_crystal_size_mid       0.09
_exptl_crystal_size_min       0.035
_exptl_crystal_size_rad       ?
_exptl_crystal_density_meas    ?
_exptl_crystal_density_diffn   1.270
_exptl_crystal_density_method  'not measured'
_exptl_crystal_F_000          2080
_exptl_absorpt_coefficient_mu  0.081
_exptl_absorpt_correction_type 'Multi-Scan'
_exptl_absorpt_process_details '(SADABS, Sheldrick, Bruker, 2001))'

```

\_exptl\_absorpt\_correction\_T\_min 0.9665  
\_exptl\_absorpt\_correction\_T\_max 0.9968

#=====

# 7. EXPERIMENTAL DATA

\_exptl\_special\_details

;

;

\_diffrn\_ambient\_temperature 100(1)

\_diffrn\_radiation\_wavelength 0.71073

\_diffrn\_radiation\_type 'MoK\alpha'

\_diffrn\_radiation\_source 'fine focus sealed Siemens Mo tube '

\_diffrn\_radiation\_monochromator 'parallel mounted graphite'

\_diffrn\_radiation\_detector

;

CCD area-detector

;

\_diffrn\_measurement\_device\_type

;

Bruker Smart Apex; CCD area detector

;

\_diffrn\_measurement\_method '\f and \w scans'

\_diffrn\_special\_details

;

Crystal into the cold nitrogen stream of the low-temperature unit  
(KRYOFLEX, (Bruker, 2000)).

;

\_diffrn\_detector\_area\_resol\_mean 66.06

\_diffrn\_standards\_number 0

\_diffrn\_standards\_interval\_count ?

\_diffrn\_standards\_interval\_time ?

\_diffrn\_standards\_decay\_% 0

loop\_

\_diffrn\_standard\_refl\_index\_h

\_diffrn\_standard\_refl\_index\_k

\_diffrn\_standard\_refl\_index\_l

? ? ?

# number of measured reflections (redundant set)

\_diffrn\_reflns\_number 39203

\_diffrn\_reflns\_av\_R\_equivalents 0.0772

\_diffrn\_reflns\_av\_sigmaI/netI 0.0834

\_diffrn\_reflns\_limit\_h\_min -11

\_diffrn\_reflns\_limit\_h\_max 10

\_diffrn\_reflns\_limit\_k\_min -23

\_diffrn\_reflns\_limit\_k\_max 23

\_diffrn\_reflns\_limit\_l\_min -37

\_diffrn\_reflns\_limit\_l\_max 37

\_diffrn\_reflns\_theta\_min 2.55

\_diffrn\_reflns\_theta\_max 26.02

\_diffrn\_measured\_fraction\_theta\_max 0.993

\_diffrn\_reflns\_theta\_full 25.00

\_diffrn\_measured\_fraction\_theta\_full 0.995

\_diffrn\_reflns\_reduction\_process

;

Intensity data were corrected for Lorentz and polarization

```

effects, decay and absorption and reduced to  $F_o^2$ 
using SAINT (Bruker, 2000) and SADABS (Sheldrick, 2001)
;

# number of unique reflections
_reflns_number_total      10011
_reflns_number_gt         6490
_reflns_threshold_expression I>2\sigma(I)

_computing_data_collection 'SMART, Version 5.624, (Bruker, 2001)'
_computing_cell_refinement 'SAINTPLUS, Version 6.02A, (Bruker, 2001)'
_computing_data_reduction 'XPREP, Version 5.1/NT, (Bruker, 2001)'
_computing_structure_solution
;
SIR2004 (Burla et al., 2005)
;
_computing_structure_refinement 'SHELXL-97 (Sheldrick, 1997)'
_computing_molecular_graphics
;
PLUTO (Meetsma, 2006)
PLATON (Spek, 2003)
;
_computing_publication_material 'PLATON (Spek, 2003)'

#=====

# 8. REFINEMENT DATA

_refine_special_details
;
Refinement of  $F^2$  against ALL reflections. The weighted R-factor wR and
goodness of fit S are based on  $F^2$ , conventional R-factors R are based
on F, with F set to zero for negative  $F^2$ . The threshold expression of
 $F^2 > 2\sigma(F^2)$  is used only for calculating R-factors(gt) etc. and is
not relevant to the choice of reflections for refinement. R-factors based
on  $F^2$  are statistically about twice as large as those based on F, and R-
factors based on ALL data will be even larger.
;

_refine_ls_structure_factor_coef Fsqd
_refine_ls_matrix_type full
_refine_ls_weighting_scheme calc
_refine_ls_weighting_details
'calc w=1/[\sigma^2(Fo^2)+(0.0506P)^2+0.1669P] where P=(Fo^2+2Fc^2)/3'
_atom_sites_solution_primary direct
_atom_sites_solution_secondary direct
_atom_sites_solution_hydrogens difmap
_refine_ls_hydrogen_treatment refall
_refine_ls_extinction_method none
_refine_ls_extinction_coef ?
_refine_ls_abs_structure_details ?
_chemical_absolute_configuration '.'

_refine_ls_abs_structure_Flack ?
_refine_ls_number_reflns 10011
_refine_ls_number_parameters 915
_refine_ls_number_restraints 0
_refine_ls_number_constraints ?
_refine_ls_R_factor_all 0.0938

```



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| _refine_ls_R_factor_gt         | 0.0502 |
| _refine_ls_wR_factor_ref       | 0.1176 |
| _refine_ls_wR_factor_gt        | 0.1027 |
| _refine_ls_goodness_of_fit_ref | 1.009  |
| _refine_ls_restrained_S_all    | 1.009  |
| _refine_ls_shift/su_max        | 0.001  |
| _refine_ls_shift/su_mean       | 0.000  |

|                          |        |
|--------------------------|--------|
| _refine_diff_density_max | 0.212  |
| _refine_diff_density_min | -0.245 |
| _refine_diff_density_rms | 0.050  |

|                               |      |
|-------------------------------|------|
| _vrn_publ_code_void_volume    | 0.0  |
| _vrn_publ_code_squeezed_elec  | 0.0  |
| _vrn_publ_code_frame_time_sec | 30.0 |
| _vrn_publ_code_meas_time_hour | 18.0 |

#=====

# # 9. ATOMIC COORDINATES AND DISPLACEMENT PARAMETERS

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\_atom\_site\_type\_symbol  
\_atom\_site\_thermal\_displace\_type  
\_atom\_site\_fract\_x  
\_atom\_site\_fract\_y  
\_atom\_site\_fract\_z  
\_atom\_site\_occupancy  
\_atom\_site\_U\_iso\_or\_equiv  
\_atom\_site\_calc\_flag  
\_atom\_site\_refinement\_flags  
O11 O Uani 0.38383(16) 0.06365(7) 0.48796(5) 1.000 0.0202(5) . .  
O12 O Uani 0.40750(15) 0.15907(7) 0.53386(4) 1.000 0.0157(5) . .  
O13 O Uani -0.11514(16) 0.33340(7) 0.59494(4) 1.000 0.0192(5) . .  
N11 N Uani 0.18207(18) 0.13130(8) 0.50154(5) 1.000 0.0139(5) . .  
C11 C Uani 0.0831(2) 0.10080(11) 0.46692(6) 1.000 0.0150(7) . .  
C12 C Uani 0.0842(3) 0.02877(11) 0.45749(7) 1.000 0.0181(7) . .  
C13 C Uani -0.0206(3) 0.00102(12) 0.42639(7) 1.000 0.0219(7) . .  
C14 C Uani -0.1303(3) 0.04406(12) 0.40573(7) 1.000 0.0213(7) . .  
C15 C Uani -0.1310(3) 0.11582(11) 0.41467(7) 1.000 0.0180(7) . .  
C16 C Uani -0.0217(2) 0.14636(11) 0.44432(6) 1.000 0.0156(7) . .  
C17 C Uani -0.0080(2) 0.22323(11) 0.45605(6) 1.000 0.0139(6) . .  
C18 C Uani 0.0171(2) 0.23148(10) 0.50469(6) 1.000 0.0130(7) . .  
C19 C Uani -0.0590(2) 0.28048(11) 0.52868(7) 1.000 0.0130(6) . .  
C110 C Uani -0.0331(2) 0.28392(10) 0.57430(7) 1.000 0.0151(7) . .  
C111 C Uani 0.0691(2) 0.23820(11) 0.59690(7) 1.000 0.0164(7) . .  
C112 C Uani 0.1409(2) 0.18778(11) 0.57316(7) 1.000 0.0157(7) . .  
C113 C Uani 0.1158(2) 0.18435(10) 0.52746(6) 1.000 0.0135(6) . .  
C114 C Uani 0.3315(2) 0.11303(11) 0.50652(6) 1.000 0.0144(6) . .  
C115 C Uani 0.5622(2) 0.14242(11) 0.55206(7) 1.000 0.0173(7) . .  
C116 C Uani 0.6664(3) 0.13462(14) 0.51554(8) 1.000 0.0220(8) . .  
C117 C Uani 0.5582(3) 0.07600(12) 0.58012(8) 1.000 0.0221(8) . .  
C118 C Uani 0.6015(3) 0.20729(12) 0.58023(8) 1.000 0.0222(8) . .  
C119 C Uani -0.0671(3) 0.34892(14) 0.64023(7) 1.000 0.0278(8) . .  
C120 C Uani -0.0078(2) 0.27709(11) 0.42643(6) 1.000 0.0143(6) . .  
C121 C Uani -0.0594(2) 0.27070(11) 0.37707(7) 1.000 0.0164(7) . .  
C122 C Uani -0.1192(3) 0.34526(11) 0.36494(7) 1.000 0.0182(7) . .  
C123 C Uani -0.0437(2) 0.39224(11) 0.39986(7) 1.000 0.0164(7) . .  
C124 C Uani -0.0417(3) 0.46649(12) 0.39926(7) 1.000 0.0201(7) . .

C125 C Uani 0.0384(3) 0.50159(12) 0.43257(7) 1.000 0.0214(7) . .  
C126 C Uani 0.1288(2) 0.46437(11) 0.46562(7) 1.000 0.0170(7) . .  
C127 C Uani 0.2270(3) 0.50171(12) 0.49630(7) 1.000 0.0226(8) . .  
C128 C Uani 0.3236(3) 0.46673(12) 0.52595(8) 1.000 0.0233(8) . .  
C129 C Uani 0.3268(3) 0.39275(12) 0.52614(7) 1.000 0.0208(7) . .  
C130 C Uani 0.2307(2) 0.35469(12) 0.49736(7) 1.000 0.0169(7) . .  
C131 C Uani 0.1266(2) 0.38857(10) 0.46663(6) 1.000 0.0144(7) . .  
C132 C Uani 0.0277(2) 0.35316(10) 0.43398(6) 1.000 0.0140(6) . .  
C133 C Uani 0.0683(3) 0.25028(14) 0.34974(8) 1.000 0.0239(8) . .

H12 H Uiso 0.157(2) 0.0004(11) 0.4732(6) 1.000 0.014(6) . .  
H13 H Uiso -0.019(2) -0.0498(12) 0.4206(7) 1.000 0.024(6) . .  
H14 H Uiso -0.207(2) 0.0259(10) 0.3835(7) 1.000 0.013(5) . .  
H15 H Uiso -0.213(2) 0.1434(11) 0.4008(7) 1.000 0.022(6) . .  
H19 H Uiso -0.133(2) 0.3125(10) 0.5138(6) 1.000 0.009(5) . .  
H111 H Uiso 0.090(2) 0.2419(11) 0.6293(7) 1.000 0.023(6) . .  
H112 H Uiso 0.206(2) 0.1557(10) 0.5888(6) 1.000 0.013(5) . .  
H116 H Uiso 0.650(3) 0.0907(13) 0.4975(8) 1.000 0.034(7) . .  
H116' H Uiso 0.768(3) 0.1344(11) 0.5295(7) 1.000 0.021(6) . .  
H116" H Uiso 0.657(2) 0.1771(12) 0.4965(7) 1.000 0.022(6) . .  
H117 H Uiso 0.491(3) 0.0823(12) 0.6033(8) 1.000 0.031(6) . .  
H117' H Uiso 0.662(3) 0.0658(12) 0.5944(8) 1.000 0.037(7) . .  
H117" H Uiso 0.532(2) 0.0333(12) 0.5628(7) 1.000 0.023(6) . .  
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H118" H Uiso 0.526(3) 0.2155(12) 0.6038(8) 1.000 0.032(6) . .  
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H119" H Uiso 0.042(3) 0.3624(13) 0.6442(8) 1.000 0.041(8) . .  
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H125 H Uiso 0.040(2) 0.5536(11) 0.4338(6) 1.000 0.015(5) . .  
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H133 H Uiso 0.157(3) 0.2872(12) 0.3538(7) 1.000 0.032(7) . .  
H133' H Uiso 0.032(2) 0.2489(11) 0.3182(8) 1.000 0.027(6) . .  
H133" H Uiso 0.111(2) 0.2025(11) 0.3596(6) 1.000 0.016(5) . .

O21 O Uani 0.81625(16) 0.51495(7) 0.29313(5) 1.000 0.0216(5) . .  
O22 O Uani 0.79031(16) 0.42704(8) 0.24187(5) 1.000 0.0232(5) . .  
O23 O Uani 0.24959(17) 0.23469(8) 0.20242(4) 1.000 0.0232(5) . .  
N21 N Uani 0.59770(19) 0.45320(9) 0.28111(5) 1.000 0.0165(5) . .  
C21 C Uani 0.5328(2) 0.48495(11) 0.31836(6) 1.000 0.0159(7) . .  
C22 C Uani 0.5394(3) 0.55737(11) 0.32531(7) 1.000 0.0186(7) . .  
C23 C Uani 0.4678(3) 0.58684(12) 0.35940(7) 1.000 0.0223(8) . .  
C24 C Uani 0.3873(3) 0.54440(12) 0.38565(7) 1.000 0.0198(7) . .  
C25 C Uani 0.3794(2) 0.47205(11) 0.37858(7) 1.000 0.0171(7) . .  
C26 C Uani 0.4558(2) 0.44023(10) 0.34556(6) 1.000 0.0146(7) . .  
C27 C Uani 0.4587(2) 0.36319(10) 0.33520(6) 1.000 0.0134(6) . .  
C28 C Uani 0.4408(2) 0.35177(10) 0.28681(6) 1.000 0.0143(6) . .  
C29 C Uani 0.3485(2) 0.29816(11) 0.26800(7) 1.000 0.0158(7) . .  
C210 C Uani 0.3324(2) 0.28856(11) 0.22288(7) 1.000 0.0174(7) . .  
C211 C Uani 0.4044(3) 0.33404(12) 0.19566(7) 1.000 0.0195(7) . .  
C212 C Uani 0.4920(3) 0.38872(12) 0.21365(7) 1.000 0.0196(7) . .  
C213 C Uani 0.5115(2) 0.39710(10) 0.25942(6) 1.000 0.0146(7) . .

|      |   |      |           |             |             |       |            |     |
|------|---|------|-----------|-------------|-------------|-------|------------|-----|
| C214 | C | Uani | 0.7433(2) | 0.46927(11) | 0.27354(7)  | 1.000 | 0.0176(7)  | . . |
| C215 | C | Uani | 0.9338(3) | 0.44277(12) | 0.22291(7)  | 1.000 | 0.0243(8)  | . . |
| C216 | C | Uani | 1.0633(3) | 0.43578(15) | 0.25794(9)  | 1.000 | 0.0316(9)  | . . |
| C217 | C | Uani | 0.9246(3) | 0.51538(14) | 0.20142(9)  | 1.000 | 0.0324(9)  | . . |
| C218 | C | Uani | 0.9385(4) | 0.38475(17) | 0.18830(11) | 1.000 | 0.0419(11) | . . |
| C219 | C | Uani | 0.1945(3) | 0.18258(13) | 0.23111(8)  | 1.000 | 0.0242(8)  | . . |
| C220 | C | Uani | 0.4783(2) | 0.30884(11) | 0.36469(6)  | 1.000 | 0.0132(6)  | . . |
| C221 | C | Uani | 0.4606(2) | 0.31291(11) | 0.41428(6)  | 1.000 | 0.0151(7)  | . . |
| C222 | C | Uani | 0.3994(3) | 0.23875(11) | 0.42453(7)  | 1.000 | 0.0172(7)  | . . |
| C223 | C | Uani | 0.4500(2) | 0.19268(11) | 0.38855(7)  | 1.000 | 0.0156(6)  | . . |
| C224 | C | Uani | 0.4458(3) | 0.11804(11) | 0.38643(7)  | 1.000 | 0.0201(7)  | . . |
| C225 | C | Uani | 0.5017(3) | 0.08494(12) | 0.35149(7)  | 1.000 | 0.0220(7)  | . . |
| C226 | C | Uani | 0.5733(2) | 0.12308(11) | 0.31891(7)  | 1.000 | 0.0173(7)  | . . |
| C227 | C | Uani | 0.6428(3) | 0.08721(12) | 0.28548(7)  | 1.000 | 0.0228(7)  | . . |
| C228 | C | Uani | 0.7211(3) | 0.12305(12) | 0.25614(7)  | 1.000 | 0.0238(8)  | . . |
| C229 | C | Uani | 0.7341(2) | 0.19705(12) | 0.25934(7)  | 1.000 | 0.0195(7)  | . . |
| C230 | C | Uani | 0.6654(2) | 0.23372(11) | 0.29076(7)  | 1.000 | 0.0158(7)  | . . |
| C231 | C | Uani | 0.5791(2) | 0.19844(11) | 0.32114(6)  | 1.000 | 0.0147(6)  | . . |
| C232 | C | Uani | 0.5045(2) | 0.23278(11) | 0.35522(6)  | 1.000 | 0.0142(6)  | . . |
| C233 | C | Uani | 0.6067(3) | 0.32838(13) | 0.44204(7)  | 1.000 | 0.0204(7)  | . . |

|        |   |      |          |            |            |       |           |     |
|--------|---|------|----------|------------|------------|-------|-----------|-----|
| H22    | H | Uiso | 0.589(2) | 0.5862(11) | 0.3052(7)  | 1.000 | 0.016(5)  | . . |
| H23    | H | Uiso | 0.467(2) | 0.6392(12) | 0.3636(7)  | 1.000 | 0.028(6)  | . . |
| H24    | H | Uiso | 0.338(2) | 0.5658(10) | 0.4095(6)  | 1.000 | 0.013(5)  | . . |
| H25    | H | Uiso | 0.319(2) | 0.4446(10) | 0.3967(7)  | 1.000 | 0.014(5)  | . . |
| H29    | H | Uiso | 0.301(2) | 0.2705(11) | 0.2864(7)  | 1.000 | 0.020(6)  | . . |
| H211   | H | Uiso | 0.390(2) | 0.3266(10) | 0.1646(7)  | 1.000 | 0.014(5)  | . . |
| H212   | H | Uiso | 0.545(2) | 0.4190(11) | 0.1951(7)  | 1.000 | 0.022(6)  | . . |
| H216   | H | Uiso | 1.066(3) | 0.4730(13) | 0.2815(8)  | 1.000 | 0.037(7)  | . . |
| H216'  | H | Uiso | 1.157(3) | 0.4391(12) | 0.2438(8)  | 1.000 | 0.035(7)  | . . |
| H216'' | H | Uiso | 1.065(3) | 0.3866(15) | 0.2739(9)  | 1.000 | 0.056(8)  | . . |
| H217   | H | Uiso | 0.838(3) | 0.5173(12) | 0.1792(8)  | 1.000 | 0.036(7)  | . . |
| H217'  | H | Uiso | 1.016(2) | 0.5242(11) | 0.1866(7)  | 1.000 | 0.024(6)  | . . |
| H217'' | H | Uiso | 0.927(3) | 0.5542(14) | 0.2261(9)  | 1.000 | 0.054(8)  | . . |
| H218   | H | Uiso | 0.942(3) | 0.3380(14) | 0.2026(8)  | 1.000 | 0.040(8)  | . . |
| H218'  | H | Uiso | 1.033(3) | 0.3903(13) | 0.1723(8)  | 1.000 | 0.046(7)  | . . |
| H218'' | H | Uiso | 0.853(4) | 0.3859(18) | 0.1671(11) | 1.000 | 0.087(13) | . . |
| H219   | H | Uiso | 0.280(3) | 0.1646(13) | 0.2530(8)  | 1.000 | 0.040(7)  | . . |
| H219'  | H | Uiso | 0.155(2) | 0.1410(12) | 0.2113(7)  | 1.000 | 0.027(6)  | . . |
| H219'' | H | Uiso | 0.110(3) | 0.2036(11) | 0.2482(7)  | 1.000 | 0.027(6)  | . . |
| H221   | H | Uiso | 0.388(2) | 0.3485(11) | 0.4204(7)  | 1.000 | 0.020(6)  | . . |
| H222   | H | Uiso | 0.439(2) | 0.2223(10) | 0.4547(7)  | 1.000 | 0.015(5)  | . . |
| H222'  | H | Uiso | 0.287(2) | 0.2384(10) | 0.4240(6)  | 1.000 | 0.017(5)  | . . |
| H224   | H | Uiso | 0.400(2) | 0.0910(10) | 0.4102(7)  | 1.000 | 0.013(5)  | . . |
| H225   | H | Uiso | 0.497(2) | 0.0325(12) | 0.3501(7)  | 1.000 | 0.021(6)  | . . |
| H227   | H | Uiso | 0.636(2) | 0.0352(12) | 0.2842(7)  | 1.000 | 0.028(6)  | . . |
| H228   | H | Uiso | 0.767(2) | 0.0951(12) | 0.2319(7)  | 1.000 | 0.031(6)  | . . |
| H229   | H | Uiso | 0.794(2) | 0.2218(11) | 0.2385(7)  | 1.000 | 0.018(5)  | . . |
| H230   | H | Uiso | 0.676(2) | 0.2847(10) | 0.2934(6)  | 1.000 | 0.009(5)  | . . |
| H233   | H | Uiso | 0.684(3) | 0.2895(12) | 0.4379(7)  | 1.000 | 0.031(6)  | . . |
| H233'  | H | Uiso | 0.588(2) | 0.3321(11) | 0.4748(7)  | 1.000 | 0.021(6)  | . . |
| H233'' | H | Uiso | 0.649(3) | 0.3738(13) | 0.4343(7)  | 1.000 | 0.032(7)  | . . |

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loop_
_atom_site_aniso_label
_atom_site_aniso_U_11
_atom_site_aniso_U_22
_atom_site_aniso_U_33
_atom_site_aniso_U_23

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\_atom\_site\_aniso\_U\_13

\_atom\_site\_aniso\_U\_12

O11 0.0204(9) 0.0206(8) 0.0198(8) -0.0034(7) 0.0025(7) 0.0059(7)  
O12 0.0122(8) 0.0173(8) 0.0174(8) -0.0008(6) -0.0002(6) 0.0009(6)  
O13 0.0234(9) 0.0206(8) 0.0140(8) -0.0037(6) 0.0036(7) 0.0062(7)  
N11 0.0133(10) 0.0148(9) 0.0136(9) -0.0022(7) 0.0006(8) 0.0026(7)  
C11 0.0149(12) 0.0195(11) 0.0112(11) -0.0024(9) 0.0040(9) -0.0024(9)  
C12 0.0216(13) 0.0176(12) 0.0157(12) -0.0008(9) 0.0049(10) 0.0007(10)  
C13 0.0290(14) 0.0167(12) 0.0210(12) -0.0037(10) 0.0077(11) -0.0034(10)  
C14 0.0202(13) 0.0253(13) 0.0179(12) -0.0054(10) -0.0013(10) -0.0045(10)  
C15 0.0171(13) 0.0198(12) 0.0173(12) -0.0016(9) 0.0021(10) -0.0005(10)  
C16 0.0158(12) 0.0201(11) 0.0115(11) -0.0005(9) 0.0044(9) -0.0004(9)  
C17 0.0084(11) 0.0197(11) 0.0137(11) -0.0027(9) 0.0009(9) 0.0009(9)  
C18 0.0128(12) 0.0130(11) 0.0132(11) 0.0004(8) 0.0011(9) -0.0035(9)  
C19 0.0099(11) 0.0136(11) 0.0153(11) 0.0034(9) 0.0008(9) -0.0005(9)  
C110 0.0166(12) 0.0115(10) 0.0177(12) -0.0020(9) 0.0038(9) -0.0011(9)  
C111 0.0196(13) 0.0179(11) 0.0120(11) 0.0003(9) 0.0031(9) -0.0022(9)  
C112 0.0137(12) 0.0163(11) 0.0168(12) 0.0043(9) 0.0000(9) 0.0004(9)  
C113 0.0131(11) 0.0137(11) 0.0142(11) -0.0016(8) 0.0037(9) -0.0017(9)  
C114 0.0182(12) 0.0143(11) 0.0105(10) 0.0022(9) 0.0004(9) 0.0002(9)  
C115 0.0104(12) 0.0218(12) 0.0194(12) 0.0019(9) 0.0000(9) 0.0018(9)  
C116 0.0161(14) 0.0246(14) 0.0259(13) 0.0033(11) 0.0046(11) 0.0030(10)  
C117 0.0242(15) 0.0213(13) 0.0207(13) 0.0021(10) 0.0011(11) 0.0018(11)  
C118 0.0190(14) 0.0204(13) 0.0271(14) -0.0028(10) 0.0015(12) -0.0021(10)  
C119 0.0388(17) 0.0296(14) 0.0144(12) -0.0051(11) -0.0007(11) 0.0120(12)  
C120 0.0105(11) 0.0201(11) 0.0124(11) -0.0022(9) 0.0022(9) 0.0007(9)  
C121 0.0162(12) 0.0208(12) 0.0119(11) -0.0007(9) -0.0007(9) -0.0038(10)  
C122 0.0171(13) 0.0247(12) 0.0127(12) 0.0012(9) 0.0015(10) -0.0005(10)  
C123 0.0122(12) 0.0229(12) 0.0147(11) 0.0043(9) 0.0040(9) -0.0016(9)  
C124 0.0200(13) 0.0219(12) 0.0185(12) 0.0063(10) 0.0016(10) 0.0030(10)  
C125 0.0244(13) 0.0134(12) 0.0270(13) 0.0029(10) 0.0063(11) 0.0018(10)  
C126 0.0166(12) 0.0197(12) 0.0156(11) 0.0003(9) 0.0063(9) -0.0008(9)  
C127 0.0246(14) 0.0194(13) 0.0239(13) -0.0017(10) 0.0025(10) -0.0014(10)  
C128 0.0235(14) 0.0250(13) 0.0209(13) -0.0072(10) -0.0012(11) -0.0049(10)  
C129 0.0193(13) 0.0247(13) 0.0179(12) -0.0002(10) -0.0008(10) -0.0006(10)  
C130 0.0180(13) 0.0193(12) 0.0143(11) -0.0010(9) 0.0060(9) -0.0014(10)  
C131 0.0142(12) 0.0164(11) 0.0131(11) -0.0014(9) 0.0048(9) -0.0006(9)  
C132 0.0124(11) 0.0183(11) 0.0120(11) 0.0004(9) 0.0050(9) 0.0018(9)  
C133 0.0247(14) 0.0364(15) 0.0103(12) -0.0027(10) -0.0004(10) 0.0053(12)  
O21 0.0217(9) 0.0200(8) 0.0233(9) 0.0010(7) 0.0032(7) -0.0023(7)  
O22 0.0198(9) 0.0249(9) 0.0268(9) -0.0046(7) 0.0120(7) -0.0012(7)  
O23 0.0293(10) 0.0247(9) 0.0148(8) -0.0033(7) -0.0028(7) -0.0042(7)  
N21 0.0180(10) 0.0161(9) 0.0159(9) -0.0009(7) 0.0050(8) -0.0012(8)  
C21 0.0140(12) 0.0205(12) 0.0131(11) -0.0001(9) 0.0009(9) 0.0038(9)  
C22 0.0199(13) 0.0167(12) 0.0190(12) 0.0043(9) 0.0007(10) 0.0000(9)  
C23 0.0239(13) 0.0190(13) 0.0231(13) -0.0023(10) -0.0027(10) 0.0041(10)  
C24 0.0207(13) 0.0245(12) 0.0141(12) -0.0039(10) 0.0007(10) 0.0063(10)  
C25 0.0163(12) 0.0194(12) 0.0151(11) 0.0021(9) -0.0005(10) 0.0038(9)  
C26 0.0125(12) 0.0173(11) 0.0135(11) 0.0004(9) -0.0023(9) 0.0016(9)  
C27 0.0106(11) 0.0164(11) 0.0133(11) -0.0028(9) 0.0017(9) -0.0001(9)  
C28 0.0134(11) 0.0150(11) 0.0148(11) 0.0011(9) 0.0032(9) 0.0048(9)  
C29 0.0148(12) 0.0182(12) 0.0148(12) 0.0029(9) 0.0031(10) 0.0044(9)  
C210 0.0180(12) 0.0192(12) 0.0146(11) -0.0024(9) -0.0014(9) 0.0040(9)  
C211 0.0261(13) 0.0251(12) 0.0073(11) 0.0010(9) 0.0009(10) 0.0050(10)  
C212 0.0229(13) 0.0228(12) 0.0138(12) 0.0029(10) 0.0055(10) 0.0026(10)  
C213 0.0164(12) 0.0133(11) 0.0141(11) -0.0004(9) 0.0008(9) 0.0031(9)  
C214 0.0216(13) 0.0163(12) 0.0151(11) 0.0057(9) 0.0036(10) 0.0016(10)  
C215 0.0196(13) 0.0291(13) 0.0258(13) 0.0009(10) 0.0110(10) -0.0001(10)  
C216 0.0220(15) 0.0371(16) 0.0369(16) 0.0070(13) 0.0087(13) 0.0069(12)  
C217 0.0274(16) 0.0401(16) 0.0312(16) 0.0109(13) 0.0107(14) 0.0017(12)  
C218 0.0383(19) 0.0433(19) 0.0481(19) -0.0144(15) 0.0262(16) -0.0035(15)

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C219 0.0290(15) 0.0212(13) 0.0215(13) -0.0031(10) -0.0030(12) -0.0043(11)
C220 0.0077(11) 0.0188(11) 0.0130(11) 0.0003(9) 0.0008(9) -0.0009(9)
C221 0.0159(12) 0.0199(12) 0.0098(11) 0.0007(9) 0.0025(9) 0.0040(10)
C222 0.0175(13) 0.0204(12) 0.0141(12) 0.0016(9) 0.0042(10) -0.0023(10)
C223 0.0106(11) 0.0206(11) 0.0147(11) 0.0023(9) -0.0043(9) -0.0003(9)
C224 0.0224(13) 0.0201(12) 0.0174(12) 0.0050(9) 0.0001(10) -0.0036(10)
C225 0.0224(13) 0.0160(12) 0.0265(13) 0.0008(10) -0.0032(10) 0.0000(10)
C226 0.0176(12) 0.0185(12) 0.0150(11) -0.0007(9) -0.0032(9) 0.0000(9)
C227 0.0268(14) 0.0192(12) 0.0218(12) -0.0049(10) -0.0018(10) 0.0012(10)
C228 0.0252(14) 0.0271(13) 0.0191(12) -0.0056(10) 0.0020(11) 0.0065(10)
C229 0.0173(12) 0.0255(13) 0.0158(12) -0.0001(10) 0.0021(10) 0.0015(10)
C230 0.0150(12) 0.0182(12) 0.0137(11) -0.0001(9) -0.0020(9) 0.0015(9)
C231 0.0111(11) 0.0190(11) 0.0131(11) -0.0012(9) -0.0037(9) 0.0020(9)
C232 0.0101(11) 0.0190(11) 0.0129(11) 0.0004(9) -0.0016(9) 0.0003(9)
C233 0.0218(13) 0.0251(13) 0.0141(12) -0.0009(10) 0.0013(10) -0.0043(11)

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# # 10. MOLECULAR GEOMETRY

\_geom\_special\_details

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Bond distances, angles etc. have been calculated using the rounded fractional coordinates. All su's are estimated from the variances of the (full) variance-covariance matrix. The cell esds are taken into account in the estimation of distances, angles and torsion angles

;

loop\_

\_geom\_bond\_atom\_site\_label\_1

\_geom\_bond\_atom\_site\_label\_2

\_geom\_bond\_distance

\_geom\_bond\_site\_symmetry\_1

\_geom\_bond\_site\_symmetry\_2

\_geom\_bond\_publ\_flag

|     |      |          |   |   |     |
|-----|------|----------|---|---|-----|
| O11 | C114 | 1.204(2) | . | . | yes |
| O12 | C114 | 1.344(2) | . | . | yes |
| O12 | C115 | 1.487(2) | . | . | yes |
| O13 | C110 | 1.374(2) | . | . | yes |
| O13 | C119 | 1.431(3) | . | . | yes |
| O21 | C214 | 1.206(2) | . | . | yes |
| O22 | C215 | 1.492(3) | . | . | yes |
| O22 | C214 | 1.343(3) | . | . | yes |
| O23 | C210 | 1.374(3) | . | . | yes |
| O23 | C219 | 1.429(3) | . | . | yes |
| N11 | C11  | 1.435(2) | . | . | yes |
| N11 | C114 | 1.386(2) | . | . | yes |
| N11 | C113 | 1.433(2) | . | . | yes |
| N21 | C213 | 1.436(3) | . | . | yes |
| N21 | C21  | 1.445(2) | . | . | yes |
| N21 | C214 | 1.387(3) | . | . | yes |
| C11 | C12  | 1.386(3) | . | . | no  |
| C11 | C16  | 1.408(3) | . | . | no  |
| C12 | C13  | 1.376(3) | . | . | no  |
| C13 | C14  | 1.385(3) | . | . | no  |
| C14 | C15  | 1.378(3) | . | . | no  |
| C15 | C16  | 1.397(3) | . | . | no  |
| C16 | C17  | 1.493(3) | . | . | no  |
| C17 | C18  | 1.478(3) | . | . | no  |
| C17 | C120 | 1.354(3) | . | . | no  |

|      |       |           |   |   |    |
|------|-------|-----------|---|---|----|
| C18  | C113  | 1.395(3)  | . | . | no |
| C18  | C19   | 1.392(3)  | . | . | no |
| C19  | C110  | 1.381(3)  | . | . | no |
| C110 | C111  | 1.395(3)  | . | . | no |
| C111 | C112  | 1.386(3)  | . | . | no |
| C112 | C113  | 1.383(3)  | . | . | no |
| C12  | H12   | 0.942(19) | . | . | no |
| C13  | H13   | 0.97(2)   | . | . | no |
| C14  | H14   | 0.98(2)   | . | . | no |
| C115 | C116  | 1.520(3)  | . | . | no |
| C115 | C118  | 1.514(3)  | . | . | no |
| C15  | H15   | 0.97(2)   | . | . | no |
| C115 | C117  | 1.514(3)  | . | . | no |
| C19  | H19   | 0.979(18) | . | . | no |
| C120 | C132  | 1.481(3)  | . | . | no |
| C120 | C121  | 1.529(3)  | . | . | no |
| C121 | C122  | 1.537(3)  | . | . | no |
| C121 | C133  | 1.526(3)  | . | . | no |
| C122 | C123  | 1.495(3)  | . | . | no |
| C123 | C132  | 1.380(3)  | . | . | no |
| C123 | C124  | 1.399(3)  | . | . | no |
| C124 | C125  | 1.359(3)  | . | . | no |
| C125 | C126  | 1.418(3)  | . | . | no |
| C126 | C131  | 1.428(3)  | . | . | no |
| C126 | C127  | 1.412(3)  | . | . | no |
| C127 | C128  | 1.364(3)  | . | . | no |
| C128 | C129  | 1.393(3)  | . | . | no |
| C129 | C130  | 1.375(3)  | . | . | no |
| C130 | C131  | 1.414(3)  | . | . | no |
| C131 | C132  | 1.435(3)  | . | . | no |
| C111 | H111  | 0.98(2)   | . | . | no |
| C112 | H112  | 0.940(19) | . | . | no |
| C116 | H116" | 0.99(2)   | . | . | no |
| C116 | H116  | 1.00(2)   | . | . | no |
| C116 | H116' | 0.97(3)   | . | . | no |
| C117 | H117" | 0.98(2)   | . | . | no |
| C117 | H117  | 0.97(3)   | . | . | no |
| C117 | H117' | 1.01(3)   | . | . | no |
| C118 | H118" | 1.04(3)   | . | . | no |
| C118 | H118  | 0.99(2)   | . | . | no |
| C118 | H118' | 1.01(3)   | . | . | no |
| C119 | H119' | 1.07(3)   | . | . | no |
| C119 | H119" | 1.01(3)   | . | . | no |
| C119 | H119  | 1.03(2)   | . | . | no |
| C121 | H121  | 1.027(18) | . | . | no |
| C21  | C22   | 1.380(3)  | . | . | no |
| C21  | C26   | 1.404(3)  | . | . | no |
| C22  | C23   | 1.381(3)  | . | . | no |
| C122 | H122' | 0.994(18) | . | . | no |
| C122 | H122  | 0.97(2)   | . | . | no |
| C23  | C24   | 1.378(3)  | . | . | no |
| C124 | H124  | 0.94(2)   | . | . | no |
| C24  | C25   | 1.380(3)  | . | . | no |
| C25  | C26   | 1.398(3)  | . | . | no |
| C125 | H125  | 0.98(2)   | . | . | no |
| C26  | C27   | 1.485(3)  | . | . | no |
| C127 | H127  | 1.03(2)   | . | . | no |
| C27  | C220  | 1.359(3)  | . | . | no |
| C27  | C28   | 1.475(3)  | . | . | no |
| C128 | H128  | 0.93(2)   | . | . | no |
| C28  | C213  | 1.384(3)  | . | . | no |

|      |       |           |   |   |    |
|------|-------|-----------|---|---|----|
| C28  | C29   | 1.397(3)  | . | . | no |
| C129 | H129  | 0.98(2)   | . | . | no |
| C29  | C210  | 1.372(3)  | . | . | no |
| C130 | H130  | 0.96(2)   | . | . | no |
| C133 | H133" | 1.01(2)   | . | . | no |
| C133 | H133' | 0.98(2)   | . | . | no |
| C133 | H133  | 1.06(3)   | . | . | no |
| C22  | H22   | 0.96(2)   | . | . | no |
| C23  | H23   | 0.99(2)   | . | . | no |
| C24  | H24   | 0.969(18) | . | . | no |
| C25  | H25   | 0.958(19) | . | . | no |
| C29  | H29   | 0.90(2)   | . | . | no |
| C210 | C211  | 1.389(3)  | . | . | no |
| C211 | C212  | 1.380(3)  | . | . | no |
| C212 | C213  | 1.390(3)  | . | . | no |
| C215 | C216  | 1.512(4)  | . | . | no |
| C215 | C217  | 1.513(3)  | . | . | no |
| C215 | C218  | 1.517(4)  | . | . | no |
| C220 | C221  | 1.525(3)  | . | . | no |
| C220 | C232  | 1.484(3)  | . | . | no |
| C221 | C222  | 1.543(3)  | . | . | no |
| C221 | C233  | 1.527(3)  | . | . | no |
| C222 | C223  | 1.495(3)  | . | . | no |
| C223 | C224  | 1.407(3)  | . | . | no |
| C223 | C232  | 1.385(3)  | . | . | no |
| C224 | C225  | 1.362(3)  | . | . | no |
| C225 | C226  | 1.421(3)  | . | . | no |
| C226 | C231  | 1.422(3)  | . | . | no |
| C226 | C227  | 1.409(3)  | . | . | no |
| C227 | C228  | 1.362(3)  | . | . | no |
| C228 | C229  | 1.401(3)  | . | . | no |
| C229 | C230  | 1.368(3)  | . | . | no |
| C230 | C231  | 1.421(3)  | . | . | no |
| C231 | C232  | 1.435(3)  | . | . | no |
| C211 | H211  | 0.95(2)   | . | . | no |
| C212 | H212  | 0.96(2)   | . | . | no |
| C216 | H216' | 0.98(3)   | . | . | no |
| C216 | H216" | 1.04(3)   | . | . | no |
| C216 | H216  | 1.00(2)   | . | . | no |
| C217 | H217' | 0.987(19) | . | . | no |
| C217 | H217" | 1.04(3)   | . | . | no |
| C217 | H217  | 0.99(3)   | . | . | no |
| C218 | H218' | 1.02(3)   | . | . | no |
| C218 | H218" | 0.96(3)   | . | . | no |
| C218 | H218  | 0.98(3)   | . | . | no |
| C219 | H219' | 1.03(2)   | . | . | no |
| C219 | H219" | 1.04(3)   | . | . | no |
| C219 | H219  | 1.03(3)   | . | . | no |
| C221 | H221  | 0.97(2)   | . | . | no |
| C222 | H222' | 1.013(18) | . | . | no |
| C222 | H222  | 1.00(2)   | . | . | no |
| C224 | H224  | 1.00(2)   | . | . | no |
| C225 | H225  | 0.99(2)   | . | . | no |
| C227 | H227  | 0.98(2)   | . | . | no |
| C228 | H228  | 1.02(2)   | . | . | no |
| C229 | H229  | 0.98(2)   | . | . | no |
| C230 | H230  | 0.967(19) | . | . | no |
| C233 | H233' | 1.02(2)   | . | . | no |
| C233 | H233" | 0.97(3)   | . | . | no |
| C233 | H233  | 1.03(3)   | . | . | no |

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loop_
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_geom_angle_atom_site_label_3
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_geom_angle_site_symmetry_3
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C114 O12 C115 120.16(15) . . . yes
C110 O13 C119 116.40(17) . . . yes
C214 O22 C215 119.80(16) . . . yes
C210 O23 C219 115.96(16) . . . yes
C113 N11 C114 124.22(15) . . . yes
C11 N11 C113 114.59(15) . . . yes
C11 N11 C114 121.05(15) . . . yes
C21 N21 C213 114.88(15) . . . yes
C21 N21 C214 119.61(16) . . . yes
C213 N21 C214 124.58(16) . . . yes
N11 C11 C12 121.78(18) . . . yes
C12 C11 C16 120.86(18) . . . no
N11 C11 C16 117.26(17) . . . yes
C11 C12 C13 119.7(2) . . . no
C12 C13 C14 120.4(2) . . . no
C13 C14 C15 120.1(2) . . . no
C14 C15 C16 121.0(2) . . . no
C11 C16 C17 115.95(16) . . . no
C15 C16 C17 126.22(18) . . . no
C11 C16 C15 117.79(19) . . . no
C18 C17 C120 124.88(18) . . . no
C16 C17 C18 109.94(16) . . . no
C16 C17 C120 125.03(17) . . . no
C17 C18 C19 123.39(17) . . . no
C17 C18 C113 117.37(17) . . . no
C19 C18 C113 119.12(17) . . . no
C18 C19 C110 120.33(18) . . . no
C19 C110 C111 120.44(18) . . . no
O13 C110 C111 123.68(18) . . . yes
O13 C110 C19 115.86(17) . . . yes
C110 C111 C112 119.18(19) . . . no
C111 C112 C113 120.54(18) . . . no
C11 C12 H12 117.9(12) . . . no
C13 C12 H12 122.4(12) . . . no
C14 C13 H13 121.1(12) . . . no
N11 C113 C112 122.74(17) . . . yes
C18 C113 C112 120.32(17) . . . no
N11 C113 C18 116.87(16) . . . yes
C12 C13 H13 118.4(12) . . . no
O12 C114 N11 110.16(16) . . . yes
C13 C14 H14 122.5(11) . . . no
O11 C114 O12 125.86(17) . . . yes
O11 C114 N11 123.96(18) . . . yes
C15 C14 H14 117.4(11) . . . no
C14 C15 H15 117.2(12) . . . no
O12 C115 C116 111.81(17) . . . yes
O12 C115 C117 108.27(16) . . . yes
C16 C15 H15 121.7(12) . . . no
C116 C115 C118 111.01(18) . . . no
C117 C115 C118 111.52(18) . . . no
O12 C115 C118 101.74(16) . . . yes
C116 C115 C117 112.03(19) . . . no

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|       |      |       |            |   |   |   |     |
|-------|------|-------|------------|---|---|---|-----|
| C18   | C19  | H19   | 121.1(11)  | . | . | . | no  |
| C110  | C19  | H19   | 118.6(11)  | . | . | . | no  |
| C17   | C120 | C121  | 124.73(18) | . | . | . | no  |
| C121  | C120 | C132  | 105.64(16) | . | . | . | no  |
| C17   | C120 | C132  | 129.45(17) | . | . | . | no  |
| C120  | C121 | C122  | 103.37(16) | . | . | . | no  |
| C120  | C121 | C133  | 111.75(16) | . | . | . | no  |
| C122  | C121 | C133  | 111.50(18) | . | . | . | no  |
| C121  | C122 | C123  | 104.10(18) | . | . | . | no  |
| C124  | C123 | C132  | 122.49(19) | . | . | . | no  |
| C122  | C123 | C124  | 126.02(19) | . | . | . | no  |
| C122  | C123 | C132  | 111.49(18) | . | . | . | no  |
| C123  | C124 | C125  | 118.9(2)   | . | . | . | no  |
| C124  | C125 | C126  | 121.2(2)   | . | . | . | no  |
| C127  | C126 | C131  | 119.52(18) | . | . | . | no  |
| C125  | C126 | C127  | 120.3(2)   | . | . | . | no  |
| C125  | C126 | C131  | 120.06(18) | . | . | . | no  |
| C126  | C127 | C128  | 121.3(2)   | . | . | . | no  |
| C127  | C128 | C129  | 119.8(2)   | . | . | . | no  |
| C128  | C129 | C130  | 120.5(2)   | . | . | . | no  |
| C129  | C130 | C131  | 121.7(2)   | . | . | . | no  |
| C130  | C131 | C132  | 125.38(18) | . | . | . | no  |
| C126  | C131 | C132  | 117.30(17) | . | . | . | no  |
| C126  | C131 | C130  | 117.10(17) | . | . | . | no  |
| C123  | C132 | C131  | 119.18(17) | . | . | . | no  |
| C120  | C132 | C123  | 108.68(16) | . | . | . | no  |
| C120  | C132 | C131  | 131.92(17) | . | . | . | no  |
| C110  | C111 | H111  | 120.3(12)  | . | . | . | no  |
| C112  | C111 | H111  | 120.5(12)  | . | . | . | no  |
| C111  | C112 | H112  | 118.6(11)  | . | . | . | no  |
| C113  | C112 | H112  | 120.8(11)  | . | . | . | no  |
| C115  | C116 | H116  | 114.1(15)  | . | . | . | no  |
| H116' | C116 | H116" | 106.6(17)  | . | . | . | no  |
| C115  | C116 | H116' | 107.7(13)  | . | . | . | no  |
| C115  | C116 | H116" | 108.7(12)  | . | . | . | no  |
| H116' | C116 | H116  | 109(2)     | . | . | . | no  |
| H116" | C116 | H116  | 110.7(19)  | . | . | . | no  |
| H117" | C117 | H117  | 110.5(18)  | . | . | . | no  |
| H117' | C117 | H117" | 104.1(17)  | . | . | . | no  |
| H117' | C117 | H117  | 109(2)     | . | . | . | no  |
| C115  | C117 | H117' | 109.2(13)  | . | . | . | no  |
| C115  | C117 | H117" | 113.3(13)  | . | . | . | no  |
| C115  | C117 | H117  | 110.5(14)  | . | . | . | no  |
| H118" | C118 | H118  | 107.8(17)  | . | . | . | no  |
| C115  | C118 | H118  | 110.7(13)  | . | . | . | no  |
| C115  | C118 | H118' | 108.8(13)  | . | . | . | no  |
| C115  | C118 | H118" | 111.8(13)  | . | . | . | no  |
| H118' | C118 | H118" | 108.1(19)  | . | . | . | no  |
| H118' | C118 | H118  | 109.5(17)  | . | . | . | no  |
| O13   | C119 | H119' | 105.2(13)  | . | . | . | no  |
| H119" | C119 | H119  | 112(2)     | . | . | . | no  |
| O13   | C119 | H119" | 111.9(14)  | . | . | . | no  |
| O13   | C119 | H119  | 108.2(14)  | . | . | . | no  |
| H119' | C119 | H119" | 108(2)     | . | . | . | no  |
| H119' | C119 | H119  | 112(2)     | . | . | . | no  |
| C133  | C121 | H121  | 107.8(10)  | . | . | . | no  |
| C22   | C21  | C26   | 121.34(18) | . | . | . | no  |
| C122  | C121 | H121  | 109.4(11)  | . | . | . | no  |
| C120  | C121 | H121  | 113.0(10)  | . | . | . | no  |
| N21   | C21  | C22   | 120.84(18) | . | . | . | yes |
| N21   | C21  | C26   | 117.72(17) | . | . | . | yes |

|       |      |       |            |   |   |   |     |
|-------|------|-------|------------|---|---|---|-----|
| C121  | C122 | H122  | 111.3(12)  | . | . | . | no  |
| C123  | C122 | H122' | 110.8(11)  | . | . | . | no  |
| C123  | C122 | H122  | 115.0(12)  | . | . | . | no  |
| H122' | C122 | H122  | 105.3(15)  | . | . | . | no  |
| C121  | C122 | H122' | 110.3(11)  | . | . | . | no  |
| C21   | C22  | C23   | 119.6(2)   | . | . | . | no  |
| C22   | C23  | C24   | 120.2(2)   | . | . | . | no  |
| C123  | C124 | H124  | 118.3(13)  | . | . | . | no  |
| C125  | C124 | H124  | 122.8(13)  | . | . | . | no  |
| C23   | C24  | C25   | 120.4(2)   | . | . | . | no  |
| C124  | C125 | H125  | 121.3(11)  | . | . | . | no  |
| C24   | C25  | C26   | 120.79(19) | . | . | . | no  |
| C126  | C125 | H125  | 117.5(11)  | . | . | . | no  |
| C21   | C26  | C27   | 116.31(16) | . | . | . | no  |
| C25   | C26  | C27   | 126.06(17) | . | . | . | no  |
| C21   | C26  | C25   | 117.58(18) | . | . | . | no  |
| C126  | C127 | H127  | 118.7(13)  | . | . | . | no  |
| C128  | C127 | H127  | 120.0(14)  | . | . | . | no  |
| C28   | C27  | C220  | 122.59(17) | . | . | . | no  |
| C26   | C27  | C28   | 110.47(16) | . | . | . | no  |
| C26   | C27  | C220  | 126.92(17) | . | . | . | no  |
| C129  | C128 | H128  | 119.5(14)  | . | . | . | no  |
| C127  | C128 | H128  | 120.7(14)  | . | . | . | no  |
| C29   | C28  | C213  | 119.41(17) | . | . | . | no  |
| C27   | C28  | C213  | 119.29(17) | . | . | . | no  |
| C27   | C28  | C29   | 121.24(17) | . | . | . | no  |
| C28   | C29  | C210  | 120.47(18) | . | . | . | no  |
| C130  | C129 | H129  | 118.6(12)  | . | . | . | no  |
| C128  | C129 | H129  | 120.9(12)  | . | . | . | no  |
| C129  | C130 | H130  | 119.7(12)  | . | . | . | no  |
| C131  | C130 | H130  | 118.6(12)  | . | . | . | no  |
| C121  | C133 | H133' | 109.4(11)  | . | . | . | no  |
| C121  | C133 | H133" | 110.5(10)  | . | . | . | no  |
| C121  | C133 | H133  | 111.8(13)  | . | . | . | no  |
| H133' | C133 | H133" | 110.4(16)  | . | . | . | no  |
| H133' | C133 | H133  | 108.3(16)  | . | . | . | no  |
| H133" | C133 | H133  | 106.6(17)  | . | . | . | no  |
| C21   | C22  | H22   | 118.7(12)  | . | . | . | no  |
| C23   | C22  | H22   | 121.6(12)  | . | . | . | no  |
| C24   | C23  | H23   | 119.4(12)  | . | . | . | no  |
| C22   | C23  | H23   | 120.2(12)  | . | . | . | no  |
| C25   | C24  | H24   | 120.4(11)  | . | . | . | no  |
| C23   | C24  | H24   | 119.3(11)  | . | . | . | no  |
| C24   | C25  | H25   | 117.9(12)  | . | . | . | no  |
| C26   | C25  | H25   | 121.3(12)  | . | . | . | no  |
| C28   | C29  | H29   | 117.8(13)  | . | . | . | no  |
| C210  | C29  | H29   | 121.8(13)  | . | . | . | no  |
| C29   | C210 | C211  | 119.69(19) | . | . | . | no  |
| O23   | C210 | C29   | 123.42(18) | . | . | . | yes |
| O23   | C210 | C211  | 116.88(18) | . | . | . | yes |
| C210  | C211 | C212  | 120.5(2)   | . | . | . | no  |
| C211  | C212 | C213  | 119.7(2)   | . | . | . | no  |
| C28   | C213 | C212  | 120.18(18) | . | . | . | no  |
| N21   | C213 | C212  | 123.69(18) | . | . | . | yes |
| N21   | C213 | C28   | 116.08(16) | . | . | . | yes |
| O21   | C214 | O22   | 125.45(17) | . | . | . | yes |
| O21   | C214 | N21   | 123.90(19) | . | . | . | yes |
| O22   | C214 | N21   | 110.65(17) | . | . | . | yes |
| O22   | C215 | C217  | 109.2(2)   | . | . | . | yes |
| O22   | C215 | C218  | 101.6(2)   | . | . | . | yes |
| C216  | C215 | C217  | 112.9(2)   | . | . | . | no  |

|       |      |       |            |   |   |   |     |
|-------|------|-------|------------|---|---|---|-----|
| C216  | C215 | C218  | 110.8(2)   | . | . | . | no  |
| C217  | C215 | C218  | 111.0(2)   | . | . | . | no  |
| O22   | C215 | C216  | 110.84(18) | . | . | . | yes |
| C27   | C220 | C221  | 126.12(18) | . | . | . | no  |
| C221  | C220 | C232  | 105.72(16) | . | . | . | no  |
| C27   | C220 | C232  | 127.86(17) | . | . | . | no  |
| C222  | C221 | C233  | 111.64(17) | . | . | . | no  |
| C220  | C221 | C222  | 102.88(16) | . | . | . | no  |
| C220  | C221 | C233  | 112.97(16) | . | . | . | no  |
| C221  | C222 | C223  | 103.94(17) | . | . | . | no  |
| C222  | C223 | C224  | 127.16(19) | . | . | . | no  |
| C222  | C223 | C232  | 111.43(18) | . | . | . | no  |
| C224  | C223 | C232  | 121.42(19) | . | . | . | no  |
| C223  | C224 | C225  | 118.8(2)   | . | . | . | no  |
| C224  | C225 | C226  | 122.0(2)   | . | . | . | no  |
| C225  | C226 | C231  | 119.26(18) | . | . | . | no  |
| C225  | C226 | C227  | 121.0(2)   | . | . | . | no  |
| C227  | C226 | C231  | 119.72(18) | . | . | . | no  |
| C226  | C227 | C228  | 121.4(2)   | . | . | . | no  |
| C227  | C228 | C229  | 119.5(2)   | . | . | . | no  |
| C228  | C229 | C230  | 120.7(2)   | . | . | . | no  |
| C229  | C230 | C231  | 121.47(19) | . | . | . | no  |
| C230  | C231 | C232  | 124.98(19) | . | . | . | no  |
| C226  | C231 | C232  | 117.81(17) | . | . | . | no  |
| C226  | C231 | C230  | 117.12(17) | . | . | . | no  |
| C220  | C232 | C223  | 108.22(16) | . | . | . | no  |
| C220  | C232 | C231  | 131.83(17) | . | . | . | no  |
| C223  | C232 | C231  | 119.84(19) | . | . | . | no  |
| C210  | C211 | H211  | 117.8(11)  | . | . | . | no  |
| C212  | C211 | H211  | 121.7(12)  | . | . | . | no  |
| C211  | C212 | H212  | 120.8(13)  | . | . | . | no  |
| C213  | C212 | H212  | 119.4(13)  | . | . | . | no  |
| C215  | C216 | H216' | 109.3(15)  | . | . | . | no  |
| C215  | C216 | H216" | 112.4(15)  | . | . | . | no  |
| C215  | C216 | H216  | 114.1(15)  | . | . | . | no  |
| H216' | C216 | H216" | 106(2)     | . | . | . | no  |
| H216' | C216 | H216  | 107(2)     | . | . | . | no  |
| H216" | C216 | H216  | 107(2)     | . | . | . | no  |
| C215  | C217 | H217' | 109.4(12)  | . | . | . | no  |
| C215  | C217 | H217" | 109.2(15)  | . | . | . | no  |
| C215  | C217 | H217  | 109.7(14)  | . | . | . | no  |
| H217' | C217 | H217" | 104.0(19)  | . | . | . | no  |
| H217' | C217 | H217  | 109.1(19)  | . | . | . | no  |
| H217" | C217 | H217  | 115(2)     | . | . | . | no  |
| C215  | C218 | H218' | 109.2(14)  | . | . | . | no  |
| C215  | C218 | H218" | 112(2)     | . | . | . | no  |
| C215  | C218 | H218  | 110.1(15)  | . | . | . | no  |
| H218' | C218 | H218" | 110(3)     | . | . | . | no  |
| H218' | C218 | H218  | 108(2)     | . | . | . | no  |
| H218" | C218 | H218  | 108(3)     | . | . | . | no  |
| O23   | C219 | H219' | 106.8(12)  | . | . | . | no  |
| O23   | C219 | H219" | 110.6(12)  | . | . | . | no  |
| O23   | C219 | H219  | 109.7(14)  | . | . | . | no  |
| H219' | C219 | H219" | 110.4(17)  | . | . | . | no  |
| H219' | C219 | H219  | 109.0(18)  | . | . | . | no  |
| H219" | C219 | H219  | 110.3(19)  | . | . | . | no  |
| C220  | C221 | H221  | 110.8(13)  | . | . | . | no  |
| C222  | C221 | H221  | 109.2(12)  | . | . | . | no  |
| C233  | C221 | H221  | 109.2(12)  | . | . | . | no  |
| C221  | C222 | H222' | 112.2(11)  | . | . | . | no  |
| C221  | C222 | H222  | 111.0(11)  | . | . | . | no  |

|       |      |       |           |   |   |   |    |
|-------|------|-------|-----------|---|---|---|----|
| C223  | C222 | H222' | 110.8(11) | . | . | . | no |
| C223  | C222 | H222  | 112.2(11) | . | . | . | no |
| H222' | C222 | H222  | 106.8(15) | . | . | . | no |
| C223  | C224 | H224  | 119.1(11) | . | . | . | no |
| C225  | C224 | H224  | 122.0(11) | . | . | . | no |
| C224  | C225 | H225  | 118.2(12) | . | . | . | no |
| C226  | C225 | H225  | 119.7(12) | . | . | . | no |
| C226  | C227 | H227  | 118.4(12) | . | . | . | no |
| C228  | C227 | H227  | 120.2(12) | . | . | . | no |
| C227  | C228 | H228  | 118.7(13) | . | . | . | no |
| C229  | C228 | H228  | 121.7(13) | . | . | . | no |
| C228  | C229 | H229  | 118.3(12) | . | . | . | no |
| C230  | C229 | H229  | 121.0(12) | . | . | . | no |
| C229  | C230 | H230  | 120.7(11) | . | . | . | no |
| C231  | C230 | H230  | 117.8(11) | . | . | . | no |
| C221  | C233 | H233' | 109.7(11) | . | . | . | no |
| C221  | C233 | H233" | 111.9(14) | . | . | . | no |
| C221  | C233 | H233  | 111.1(13) | . | . | . | no |
| H233' | C233 | H233" | 106.0(17) | . | . | . | no |
| H233' | C233 | H233  | 109.9(16) | . | . | . | no |
| H233" | C233 | H233  | 108(2)    | . | . | . | no |

loop\_

\_geom\_torsion\_atom\_site\_label\_1

\_geom\_torsion\_atom\_site\_label\_2

\_geom\_torsion\_atom\_site\_label\_3

\_geom\_torsion\_atom\_site\_label\_4

\_geom\_torsion

\_geom\_torsion\_site\_symmetry\_1

\_geom\_torsion\_site\_symmetry\_2

\_geom\_torsion\_site\_symmetry\_3

\_geom\_torsion\_site\_symmetry\_4

\_geom\_torsion\_publ\_flag

|      |     |      |      |             |   |   |   |   |    |
|------|-----|------|------|-------------|---|---|---|---|----|
| C115 | O12 | C114 | O11  | -14.6(3)    | . | . | . | . | no |
| C115 | O12 | C114 | N11  | 166.91(15)  | . | . | . | . | no |
| C114 | O12 | C115 | C116 | 61.6(2)     | . | . | . | . | no |
| C114 | O12 | C115 | C117 | -62.3(2)    | . | . | . | . | no |
| C114 | O12 | C115 | C118 | -179.91(16) | . | . | . | . | no |
| C119 | O13 | C110 | C19  | -166.39(18) | . | . | . | . | no |
| C119 | O13 | C110 | C111 | 14.7(3)     | . | . | . | . | no |
| C215 | O22 | C214 | N21  | 169.67(17)  | . | . | . | . | no |
| C214 | O22 | C215 | C216 | 64.2(2)     | . | . | . | . | no |
| C214 | O22 | C215 | C217 | -60.8(2)    | . | . | . | . | no |
| C214 | O22 | C215 | C218 | -178.0(2)   | . | . | . | . | no |
| C215 | O22 | C214 | O21  | -10.6(3)    | . | . | . | . | no |
| C219 | O23 | C210 | C29  | -7.6(3)     | . | . | . | . | no |
| C219 | O23 | C210 | C211 | 171.2(2)    | . | . | . | . | no |
| C113 | N11 | C11  | C12  | -139.35(19) | . | . | . | . | no |
| C113 | N11 | C11  | C16  | 37.2(2)     | . | . | . | . | no |
| C114 | N11 | C11  | C12  | 44.8(3)     | . | . | . | . | no |
| C114 | N11 | C11  | C16  | -138.69(18) | . | . | . | . | no |
| C11  | N11 | C113 | C18  | -39.9(2)    | . | . | . | . | no |
| C11  | N11 | C113 | C112 | 137.06(19)  | . | . | . | . | no |
| C11  | N11 | C114 | O11  | -12.5(3)    | . | . | . | . | no |
| C114 | N11 | C113 | C18  | 135.83(19)  | . | . | . | . | no |
| C114 | N11 | C113 | C112 | -47.2(3)    | . | . | . | . | no |
| C113 | N11 | C114 | O12  | -9.4(2)     | . | . | . | . | no |
| C11  | N11 | C114 | O12  | 166.07(15)  | . | . | . | . | no |
| C113 | N11 | C114 | O11  | 172.06(18)  | . | . | . | . | no |
| C213 | N21 | C21  | C22  | -139.9(2)   | . | . | . | . | no |
| C214 | N21 | C213 | C212 | -52.5(3)    | . | . | . | . | no |

|      |     |      |      |             |   |   |   |   |    |
|------|-----|------|------|-------------|---|---|---|---|----|
| C213 | N21 | C21  | C26  | 36.6(2)     | . | . | . | . | no |
| C214 | N21 | C21  | C22  | 50.8(3)     | . | . | . | . | no |
| C214 | N21 | C21  | C26  | -132.84(19) | . | . | . | . | no |
| C21  | N21 | C213 | C28  | -38.6(2)    | . | . | . | . | no |
| C21  | N21 | C213 | C212 | 138.7(2)    | . | . | . | . | no |
| C214 | N21 | C213 | C28  | 130.2(2)    | . | . | . | . | no |
| C21  | N21 | C214 | O22  | 170.81(16)  | . | . | . | . | no |
| C213 | N21 | C214 | O21  | -177.28(19) | . | . | . | . | no |
| C21  | N21 | C214 | O21  | -9.0(3)     | . | . | . | . | no |
| C213 | N21 | C214 | O22  | 2.5(3)      | . | . | . | . | no |
| N11  | C11 | C12  | C13  | 174.9(2)    | . | . | . | . | no |
| C16  | C11 | C12  | C13  | -1.5(3)     | . | . | . | . | no |
| N11  | C11 | C16  | C15  | -171.80(18) | . | . | . | . | no |
| N11  | C11 | C16  | C17  | 5.8(2)      | . | . | . | . | no |
| C12  | C11 | C16  | C15  | 4.8(3)      | . | . | . | . | no |
| C12  | C11 | C16  | C17  | -177.64(18) | . | . | . | . | no |
| C11  | C12 | C13  | C14  | -2.4(4)     | . | . | . | . | no |
| C12  | C13 | C14  | C15  | 3.1(4)      | . | . | . | . | no |
| C13  | C14 | C15  | C16  | 0.3(4)      | . | . | . | . | no |
| C14  | C15 | C16  | C17  | 178.5(2)    | . | . | . | . | no |
| C14  | C15 | C16  | C11  | -4.1(3)     | . | . | . | . | no |
| C11  | C16 | C17  | C120 | 131.4(2)    | . | . | . | . | no |
| C15  | C16 | C17  | C18  | 133.2(2)    | . | . | . | . | no |
| C11  | C16 | C17  | C18  | -44.2(2)    | . | . | . | . | no |
| C15  | C16 | C17  | C120 | -51.3(3)    | . | . | . | . | no |
| C18  | C17 | C120 | C121 | -169.08(17) | . | . | . | . | no |
| C16  | C17 | C120 | C121 | 16.0(3)     | . | . | . | . | no |
| C120 | C17 | C18  | C113 | -133.6(2)   | . | . | . | . | no |
| C16  | C17 | C18  | C19  | -133.95(19) | . | . | . | . | no |
| C16  | C17 | C120 | C132 | -169.60(18) | . | . | . | . | no |
| C18  | C17 | C120 | C132 | 5.4(3)      | . | . | . | . | no |
| C120 | C17 | C18  | C19  | 50.5(3)     | . | . | . | . | no |
| C16  | C17 | C18  | C113 | 42.0(2)     | . | . | . | . | no |
| C17  | C18 | C113 | C112 | -178.05(17) | . | . | . | . | no |
| C113 | C18 | C19  | C110 | 2.2(3)      | . | . | . | . | no |
| C19  | C18 | C113 | N11  | 175.09(17)  | . | . | . | . | no |
| C19  | C18 | C113 | C112 | -1.9(3)     | . | . | . | . | no |
| C17  | C18 | C19  | C110 | 178.09(18)  | . | . | . | . | no |
| C17  | C18 | C113 | N11  | -1.0(2)     | . | . | . | . | no |
| C18  | C19 | C110 | O13  | -179.19(17) | . | . | . | . | no |
| C18  | C19 | C110 | C111 | -0.3(3)     | . | . | . | . | no |
| N21  | C21 | C22  | C23  | 175.6(2)    | . | . | . | . | no |
| C26  | C21 | C22  | C23  | -0.6(3)     | . | . | . | . | no |
| N21  | C21 | C26  | C25  | -173.16(17) | . | . | . | . | no |
| N21  | C21 | C26  | C27  | 4.5(2)      | . | . | . | . | no |
| C22  | C21 | C26  | C25  | 3.2(3)      | . | . | . | . | no |
| C22  | C21 | C26  | C27  | -179.07(19) | . | . | . | . | no |
| C21  | C22 | C23  | C24  | -1.5(4)     | . | . | . | . | no |
| C22  | C23 | C24  | C25  | 1.0(4)      | . | . | . | . | no |
| C23  | C24 | C25  | C26  | 1.7(3)      | . | . | . | . | no |
| C24  | C25 | C26  | C21  | -3.8(3)     | . | . | . | . | no |
| C24  | C25 | C26  | C27  | 178.80(19)  | . | . | . | . | no |
| C21  | C26 | C27  | C28  | -41.0(2)    | . | . | . | . | no |
| C21  | C26 | C27  | C220 | 137.5(2)    | . | . | . | . | no |
| C25  | C26 | C27  | C28  | 136.46(19)  | . | . | . | . | no |
| C25  | C26 | C27  | C220 | -45.0(3)    | . | . | . | . | no |
| C26  | C27 | C28  | C29  | -137.39(18) | . | . | . | . | no |
| C26  | C27 | C28  | C213 | 39.6(2)     | . | . | . | . | no |
| C220 | C27 | C28  | C29  | 44.0(3)     | . | . | . | . | no |
| C220 | C27 | C28  | C213 | -138.94(19) | . | . | . | . | no |
| C26  | C27 | C220 | C232 | -169.84(18) | . | . | . | . | no |

|      |      |      |      |             |   |   |   |   |    |
|------|------|------|------|-------------|---|---|---|---|----|
| C28  | C27  | C220 | C232 | 8.5(3)      | . | . | . | . | no |
| C26  | C27  | C220 | C221 | 17.4(3)     | . | . | . | . | no |
| C28  | C27  | C220 | C221 | -164.28(17) | . | . | . | . | no |
| C27  | C28  | C213 | N21  | -0.4(3)     | . | . | . | . | no |
| C29  | C28  | C213 | C212 | -0.7(3)     | . | . | . | . | no |
| C29  | C28  | C213 | N21  | 176.64(17)  | . | . | . | . | no |
| C27  | C28  | C213 | C212 | -177.82(19) | . | . | . | . | no |
| C27  | C28  | C29  | C210 | 179.59(18)  | . | . | . | . | no |
| C213 | C28  | C29  | C210 | 2.6(3)      | . | . | . | . | no |
| C28  | C29  | C210 | C211 | -2.2(3)     | . | . | . | . | no |
| C28  | C29  | C210 | O23  | 176.56(18)  | . | . | . | . | no |
| O23  | C210 | C211 | C212 | -178.8(2)   | . | . | . | . | no |
| C29  | C210 | C211 | C212 | 0.1(3)      | . | . | . | . | no |
| C210 | C211 | C212 | C213 | 1.8(4)      | . | . | . | . | no |
| C211 | C212 | C213 | N21  | -178.6(2)   | . | . | . | . | no |
| C211 | C212 | C213 | C28  | -1.4(3)     | . | . | . | . | no |
| C27  | C220 | C221 | C222 | 146.2(2)    | . | . | . | . | no |
| C27  | C220 | C221 | C233 | -93.3(2)    | . | . | . | . | no |
| C232 | C220 | C221 | C222 | -27.92(19)  | . | . | . | . | no |
| C232 | C220 | C221 | C233 | 92.6(2)     | . | . | . | . | no |
| C27  | C220 | C232 | C223 | -152.17(19) | . | . | . | . | no |
| C27  | C220 | C232 | C231 | 31.8(3)     | . | . | . | . | no |
| C221 | C220 | C232 | C223 | 21.8(2)     | . | . | . | . | no |
| C221 | C220 | C232 | C231 | -154.28(19) | . | . | . | . | no |
| C220 | C221 | C222 | C223 | 23.9(2)     | . | . | . | . | no |
| C233 | C221 | C222 | C223 | -97.5(2)    | . | . | . | . | no |
| C221 | C222 | C223 | C224 | 168.4(2)    | . | . | . | . | no |
| C221 | C222 | C223 | C232 | -11.8(2)    | . | . | . | . | no |
| C222 | C223 | C224 | C225 | -177.9(2)   | . | . | . | . | no |
| C232 | C223 | C224 | C225 | 2.4(3)      | . | . | . | . | no |
| C222 | C223 | C232 | C220 | -6.1(2)     | . | . | . | . | no |
| C222 | C223 | C232 | C231 | 170.55(18)  | . | . | . | . | no |
| C224 | C223 | C232 | C220 | 173.74(19)  | . | . | . | . | no |
| C224 | C223 | C232 | C231 | -9.7(3)     | . | . | . | . | no |
| C223 | C224 | C225 | C226 | 4.5(4)      | . | . | . | . | no |
| C224 | C225 | C226 | C227 | 173.9(2)    | . | . | . | . | no |
| C224 | C225 | C226 | C231 | -3.9(3)     | . | . | . | . | no |
| C225 | C226 | C227 | C228 | -175.1(2)   | . | . | . | . | no |
| C231 | C226 | C227 | C228 | 2.7(3)      | . | . | . | . | no |
| C225 | C226 | C231 | C230 | 173.44(19)  | . | . | . | . | no |
| C225 | C226 | C231 | C232 | -3.3(3)     | . | . | . | . | no |
| C227 | C226 | C231 | C230 | -4.4(3)     | . | . | . | . | no |
| C227 | C226 | C231 | C232 | 178.89(19)  | . | . | . | . | no |
| C226 | C227 | C228 | C229 | 0.5(4)      | . | . | . | . | no |
| C227 | C228 | C229 | C230 | -1.9(3)     | . | . | . | . | no |
| C228 | C229 | C230 | C231 | 0.1(3)      | . | . | . | . | no |
| C229 | C230 | C231 | C226 | 3.0(3)      | . | . | . | . | no |
| C229 | C230 | C231 | C232 | 179.52(18)  | . | . | . | . | no |
| C226 | C231 | C232 | C220 | -174.42(19) | . | . | . | . | no |
| C226 | C231 | C232 | C223 | 9.9(3)      | . | . | . | . | no |
| C230 | C231 | C232 | C220 | 9.1(3)      | . | . | . | . | no |
| C230 | C231 | C232 | C223 | -166.55(18) | . | . | . | . | no |

loop\_

\_geom\_contact\_atom\_site\_label\_1

\_geom\_contact\_atom\_site\_label\_2

\_geom\_contact\_distance

\_geom\_contact\_site\_symmetry\_1

\_geom\_contact\_site\_symmetry\_2

\_geom\_contact\_publ\_flag

|     |     |          |   |   |   |   |    |
|-----|-----|----------|---|---|---|---|----|
| O11 | C12 | 2.854(3) | . | . | . | . | no |
|-----|-----|----------|---|---|---|---|----|

|      |       |           |   |       |    |
|------|-------|-----------|---|-------|----|
| O11  | C116  | 2.933(3)  | . | .     | no |
| O11  | C117  | 3.087(3)  | . | .     | no |
| O11  | C224  | 3.333(3)  | . | .     | no |
| O11  | O11   | 3.225(2)  | . | 3_656 | no |
| O11  | C117  | 3.410(3)  | . | 3_656 | no |
| O12  | C112  | 2.828(2)  | . | .     | no |
| O13  | C125  | 3.306(3)  | . | 3_566 | no |
| O21  | C219  | 3.240(3)  | . | 2_655 | no |
| O21  | C22   | 2.873(3)  | . | .     | no |
| O21  | C217  | 3.024(3)  | . | .     | no |
| O21  | C216  | 2.957(3)  | . | .     | no |
| O22  | C212  | 2.843(3)  | . | .     | no |
| O11  | H116  | 2.45(3)   | . | .     | no |
| O11  | H117" | 2.59(2)   | . | .     | no |
| O11  | H224  | 2.43(2)   | . | .     | no |
| O11  | H12   | 2.375(19) | . | .     | no |
| O11  | H117" | 2.55(2)   | . | 3_656 | no |
| O12  | H112  | 2.571(18) | . | .     | no |
| O12  | H222  | 2.71(2)   | . | .     | no |
| O13  | H24   | 2.759(19) | . | 3_566 | no |
| O13  | H125  | 2.42(2)   | . | 3_566 | no |
| O21  | H217" | 2.45(3)   | . | .     | no |
| O21  | H124  | 2.59(2)   | . | 1_655 | no |
| O21  | H216  | 2.44(3)   | . | .     | no |
| O21  | H22   | 2.504(19) | . | .     | no |
| O21  | H219' | 2.39(2)   | . | 2_655 | no |
| O22  | H212  | 2.523(19) | . | .     | no |
| O23  | H111  | 2.57(2)   | . | 4_554 | no |
| C12  | O11   | 2.854(3)  | . | .     | no |
| C12  | C12   | 3.286(3)  | . | 3_556 | no |
| C15  | C121  | 3.217(3)  | . | .     | no |
| C17  | C130  | 3.442(3)  | . | .     | no |
| C18  | C130  | 3.037(3)  | . | .     | no |
| C18  | C131  | 3.355(3)  | . | .     | no |
| C19  | C132  | 3.331(3)  | . | .     | no |
| C19  | C130  | 3.181(3)  | . | .     | no |
| C19  | C131  | 3.322(3)  | . | .     | no |
| C22  | O21   | 2.873(3)  | . | .     | no |
| C22  | C228  | 3.478(3)  | . | 2_655 | no |
| C24  | C128  | 3.572(4)  | . | 3_666 | no |
| C24  | C119  | 3.548(4)  | . | 3_566 | no |
| C25  | C221  | 3.247(3)  | . | .     | no |
| C27  | C230  | 3.417(3)  | . | .     | no |
| C28  | C230  | 3.003(3)  | . | .     | no |
| C28  | C231  | 3.278(3)  | . | .     | no |
| C29  | C230  | 3.125(3)  | . | .     | no |
| C29  | C231  | 3.137(3)  | . | .     | no |
| C29  | C232  | 3.131(3)  | . | .     | no |
| C112 | O12   | 2.828(2)  | . | .     | no |
| C113 | C130  | 3.516(3)  | . | .     | no |
| C14  | H217' | 3.09(2)   | . | 2_645 | no |
| C114 | C222  | 3.523(3)  | . | .     | no |
| C15  | H121  | 2.592(19) | . | .     | no |
| C16  | H121  | 2.908(18) | . | .     | no |
| C116 | O11   | 2.933(3)  | . | .     | no |
| C17  | H222' | 2.926(18) | . | .     | no |
| C17  | H130  | 2.87(2)   | . | .     | no |
| C17  | H233  | 3.05(3)   | . | 1_455 | no |
| C117 | O11   | 3.087(3)  | . | .     | no |
| C117 | O11   | 3.410(3)  | . | 3_656 | no |
| C18  | H130  | 2.43(2)   | . | .     | no |

|      |       |           |   |       |    |
|------|-------|-----------|---|-------|----|
| C18  | H116' | 3.04(2)   | . | 1_455 | no |
| C119 | C24   | 3.548(4)  | . | 3_566 | no |
| C119 | C125  | 3.598(3)  | . | 3_566 | no |
| C19  | H130  | 2.938(19) | . | .     | no |
| C119 | C219  | 3.511(4)  | . | 4_555 | no |
| C121 | C230  | 3.509(3)  | . | 1_455 | no |
| C121 | C15   | 3.217(3)  | . | .     | no |
| C122 | C230  | 3.529(3)  | . | 1_455 | no |
| C122 | C233  | 3.562(4)  | . | 1_455 | no |
| C23  | H119' | 3.06(3)   | . | 3_566 | no |
| C24  | H119' | 2.71(3)   | . | 3_566 | no |
| C24  | H128  | 2.85(2)   | . | 3_666 | no |
| C25  | H221  | 2.65(2)   | . | .     | no |
| C125 | C119  | 3.598(3)  | . | 3_566 | no |
| C25  | H128  | 3.04(2)   | . | 3_666 | no |
| C125 | C127  | 3.360(4)  | . | 3_566 | no |
| C125 | O13   | 3.306(3)  | . | 3_566 | no |
| C26  | H221  | 2.96(2)   | . | .     | no |
| C126 | C126  | 3.520(3)  | . | 3_566 | no |
| C126 | C127  | 3.563(3)  | . | 3_566 | no |
| C27  | H230  | 2.841(18) | . | .     | no |
| C127 | C125  | 3.360(4)  | . | 3_566 | no |
| C27  | H122' | 2.903(18) | . | 1_655 | no |
| C127 | C126  | 3.563(3)  | . | 3_566 | no |
| C128 | C24   | 3.572(4)  | . | 3_666 | no |
| C28  | H230  | 2.462(18) | . | .     | no |
| C29  | H230  | 2.996(18) | . | .     | no |
| C29  | H219" | 2.82(2)   | . | .     | no |
| C29  | H219  | 2.62(2)   | . | .     | no |
| C29  | H216" | 3.07(3)   | . | 1_455 | no |
| C130 | C113  | 3.516(3)  | . | .     | no |
| C130 | C222  | 3.541(3)  | . | .     | no |
| C130 | C18   | 3.037(3)  | . | .     | no |
| C130 | C17   | 3.442(3)  | . | .     | no |
| C130 | C221  | 3.489(3)  | . | .     | no |
| C130 | C19   | 3.181(3)  | . | .     | no |
| C131 | C18   | 3.355(3)  | . | .     | no |
| C131 | C19   | 3.322(3)  | . | .     | no |
| C132 | C19   | 3.331(3)  | . | .     | no |
| C133 | C222  | 3.590(4)  | . | .     | no |
| C110 | H118' | 2.98(3)   | . | 1_455 | no |
| C110 | H125  | 3.07(2)   | . | 3_566 | no |
| C111 | H119  | 2.77(3)   | . | .     | no |
| C111 | H119" | 2.76(2)   | . | .     | no |
| C212 | O22   | 2.843(3)  | . | .     | no |
| C112 | H13   | 2.83(2)   | . | 3_556 | no |
| C113 | H130  | 2.69(2)   | . | .     | no |
| C213 | C230  | 3.472(3)  | . | .     | no |
| C114 | H117" | 2.81(2)   | . | .     | no |
| C114 | H224  | 3.06(2)   | . | .     | no |
| C114 | H222  | 2.81(2)   | . | .     | no |
| C114 | H12   | 2.78(2)   | . | .     | no |
| C114 | H116  | 2.94(3)   | . | .     | no |
| C114 | H112  | 2.938(18) | . | .     | no |
| C116 | H12   | 3.00(2)   | . | 3_656 | no |
| C216 | O21   | 2.957(3)  | . | .     | no |
| C117 | H225  | 3.01(2)   | . | 3_656 | no |
| C217 | O21   | 3.024(3)  | . | .     | no |
| C119 | H125  | 2.924(19) | . | 3_566 | no |
| C119 | H219' | 2.81(2)   | . | 4_555 | no |
| C119 | H111  | 2.50(2)   | . | .     | no |



|      |       |           |   |       |    |
|------|-------|-----------|---|-------|----|
| C219 | C119  | 3.511(4)  | . | 4_554 | no |
| C219 | O21   | 3.240(3)  | . | 2_645 | no |
| C120 | H130  | 2.97(2)   | . | .     | no |
| C120 | H233  | 2.84(3)   | . | 1_455 | no |
| C120 | H222' | 2.764(18) | . | .     | no |
| C120 | H19   | 3.040(18) | . | .     | no |
| C221 | C130  | 3.489(3)  | . | .     | no |
| C121 | H15   | 2.89(2)   | . | .     | no |
| C221 | C25   | 3.247(3)  | . | .     | no |
| C122 | H230  | 2.948(18) | . | 1_455 | no |
| C222 | C130  | 3.541(3)  | . | .     | no |
| C222 | C114  | 3.523(3)  | . | .     | no |
| C222 | C133  | 3.590(4)  | . | .     | no |
| C123 | H133  | 3.10(2)   | . | .     | no |
| C123 | H233" | 3.07(3)   | . | 1_455 | no |
| C224 | O11   | 3.333(3)  | . | .     | no |
| C125 | H24   | 3.097(18) | . | .     | no |
| C125 | H25   | 3.037(19) | . | .     | no |
| C126 | H25   | 2.84(2)   | . | .     | no |
| C228 | C22   | 3.478(3)  | . | 2_645 | no |
| C230 | C27   | 3.417(3)  | . | .     | no |
| C230 | C121  | 3.509(3)  | . | 1_655 | no |
| C230 | C28   | 3.003(3)  | . | .     | no |
| C130 | H221  | 2.84(2)   | . | .     | no |
| C230 | C213  | 3.472(3)  | . | .     | no |
| C230 | C122  | 3.529(3)  | . | 1_655 | no |
| C230 | C29   | 3.125(3)  | . | .     | no |
| C131 | H25   | 3.04(2)   | . | .     | no |
| C131 | H221  | 2.945(19) | . | .     | no |
| C231 | C29   | 3.137(3)  | . | .     | no |
| C231 | C28   | 3.278(3)  | . | .     | no |
| C132 | H133  | 3.05(2)   | . | .     | no |
| C132 | H19   | 3.024(18) | . | .     | no |
| C232 | C29   | 3.131(3)  | . | .     | no |
| C233 | C122  | 3.562(4)  | . | 1_655 | no |
| C133 | H29   | 2.99(2)   | . | .     | no |
| C133 | H222' | 2.864(18) | . | .     | no |
| C212 | H227  | 2.99(2)   | . | 2_655 | no |
| C213 | H230  | 2.733(19) | . | .     | no |
| C214 | H212  | 3.00(2)   | . | .     | no |
| C214 | H217" | 2.79(3)   | . | .     | no |
| C214 | H216  | 2.90(3)   | . | .     | no |
| C214 | H122  | 3.05(2)   | . | 1_655 | no |
| C214 | H22   | 2.82(2)   | . | .     | no |
| C219 | H29   | 2.49(2)   | . | .     | no |
| C219 | H22   | 2.95(2)   | . | 2_645 | no |
| C219 | H119" | 2.98(2)   | . | 4_554 | no |
| C219 | H217" | 3.00(3)   | . | 2_645 | no |
| C220 | H133  | 2.92(3)   | . | .     | no |
| C220 | H122' | 2.732(18) | . | 1_655 | no |
| C220 | H230  | 2.954(18) | . | .     | no |
| C220 | H29   | 2.83(2)   | . | .     | no |
| C221 | H25   | 2.818(19) | . | .     | no |
| C222 | H130  | 3.02(2)   | . | .     | no |
| C222 | H133  | 3.06(2)   | . | .     | no |
| C223 | H233  | 3.07(2)   | . | .     | no |
| C225 | H15   | 3.062(19) | . | 1_655 | no |
| C225 | H14   | 2.937(19) | . | 1_655 | no |
| C226 | H15   | 3.03(2)   | . | 1_655 | no |
| C230 | H121  | 2.845(18) | . | 1_655 | no |
| C231 | H29   | 2.961(19) | . | .     | no |

|       |       |           |   |       |    |
|-------|-------|-----------|---|-------|----|
| C231  | H121  | 2.884(18) | . | 1_655 | no |
| C231  | H15   | 3.10(2)   | . | 1_655 | no |
| C232  | H29   | 2.74(2)   | . | .     | no |
| C232  | H233  | 3.05(2)   | . | .     | no |
| C233  | H19   | 3.068(18) | . | 1_655 | no |
| C233  | H122' | 2.869(18) | . | 1_655 | no |
| H116' | C18   | 3.04(2)   | . | 1_655 | no |
| H116' | H118' | 2.49(3)   | . | .     | no |
| H116" | H222  | 2.40(3)   | . | .     | no |
| H116" | H118  | 2.49(3)   | . | .     | no |
| H117' | H118' | 2.56(3)   | . | .     | no |
| H117" | C114  | 2.81(2)   | . | .     | no |
| H117" | O11   | 2.59(2)   | . | .     | no |
| H117" | O11   | 2.55(2)   | . | 3_656 | no |
| H117" | H224  | 2.54(3)   | . | 3_656 | no |
| H117" | H116  | 2.57(3)   | . | .     | no |
| H118' | C110  | 2.98(3)   | . | 1_655 | no |
| H118' | H117' | 2.56(3)   | . | .     | no |
| H118' | H116' | 2.49(3)   | . | .     | no |
| H118" | H117  | 2.53(3)   | . | .     | no |
| H118" | H211  | 2.43(3)   | . | 4_555 | no |
| H119' | C24   | 2.71(3)   | . | 3_566 | no |
| H119' | H24   | 2.56(3)   | . | 3_566 | no |
| H119' | C23   | 3.06(3)   | . | 3_566 | no |
| H119" | H111  | 2.36(3)   | . | .     | no |
| H119" | C111  | 2.76(2)   | . | .     | no |
| H119" | C219  | 2.98(2)   | . | 4_555 | no |
| H119" | H219' | 2.19(3)   | . | 4_555 | no |
| H122' | C27   | 2.903(18) | . | 1_455 | no |
| H122' | C220  | 2.732(18) | . | 1_455 | no |
| H122' | C233  | 2.869(18) | . | 1_455 | no |
| H122' | H233" | 2.48(3)   | . | 1_455 | no |
| H122' | H230  | 2.57(3)   | . | 1_455 | no |
| H133' | H219" | 2.45(3)   | . | .     | no |
| H133' | H122  | 2.45(3)   | . | .     | no |
| H133" | H222' | 2.50(3)   | . | .     | no |
| H12   | C114  | 2.78(2)   | . | .     | no |
| H12   | C116  | 3.00(2)   | . | 3_656 | no |
| H12   | H116  | 2.55(3)   | . | 3_656 | no |
| H12   | O11   | 2.375(19) | . | .     | no |
| H216' | H218' | 2.52(3)   | . | .     | no |
| H13   | C112  | 2.83(2)   | . | 3_556 | no |
| H216" | C29   | 3.07(3)   | . | 1_655 | no |
| H216" | H218  | 2.51(4)   | . | .     | no |
| H216" | H122  | 2.54(3)   | . | 1_655 | no |
| H14   | C225  | 2.937(19) | . | 1_455 | no |
| H217' | H218' | 2.57(3)   | . | .     | no |
| H217' | C14   | 3.09(2)   | . | 2_655 | no |
| H15   | C225  | 3.062(19) | . | 1_455 | no |
| H15   | C121  | 2.89(2)   | . | .     | no |
| H15   | H121  | 2.06(3)   | . | .     | no |
| H15   | C226  | 3.03(2)   | . | 1_455 | no |
| H15   | C231  | 3.10(2)   | . | 1_455 | no |
| H217" | O21   | 2.45(3)   | . | .     | no |
| H217" | C219  | 3.00(3)   | . | 2_655 | no |
| H217" | H216  | 2.52(4)   | . | .     | no |
| H217" | C214  | 2.79(3)   | . | .     | no |
| H218' | H217' | 2.57(3)   | . | .     | no |
| H218' | H216' | 2.52(3)   | . | .     | no |
| H218" | H217  | 2.51(4)   | . | .     | no |
| H219' | C119  | 2.81(2)   | . | 4_554 | no |

|       |       |           |   |       |    |
|-------|-------|-----------|---|-------|----|
| H219' | O21   | 2.39(2)   | . | 2_645 | no |
| H219' | H119" | 2.19(3)   | . | 4_554 | no |
| H19   | C120  | 3.040(18) | . | .     | no |
| H19   | C132  | 3.024(18) | . | .     | no |
| H19   | C233  | 3.068(18) | . | 1_455 | no |
| H219" | C29   | 2.82(2)   | . | .     | no |
| H219" | H133' | 2.45(3)   | . | .     | no |
| H219" | H29   | 2.35(3)   | . | .     | no |
| H222' | C120  | 2.764(18) | . | .     | no |
| H222' | C133  | 2.864(18) | . | .     | no |
| H222' | C17   | 2.926(18) | . | .     | no |
| H222' | H133" | 2.50(3)   | . | .     | no |
| H222' | H133  | 2.51(3)   | . | .     | no |
| H233' | H222  | 2.51(3)   | . | .     | no |
| H22   | C219  | 2.95(2)   | . | 2_655 | no |
| H22   | C214  | 2.82(2)   | . | .     | no |
| H22   | O21   | 2.504(19) | . | .     | no |
| H233" | C123  | 3.07(3)   | . | 1_655 | no |
| H233" | H122' | 2.48(3)   | . | 1_655 | no |
| H24   | C125  | 3.097(18) | . | .     | no |
| H24   | O13   | 2.759(19) | . | 3_566 | no |
| H24   | H119' | 2.56(3)   | . | 3_566 | no |
| H25   | H221  | 2.02(3)   | . | .     | no |
| H25   | C125  | 3.037(19) | . | .     | no |
| H25   | C126  | 2.84(2)   | . | .     | no |
| H25   | C131  | 3.04(2)   | . | .     | no |
| H25   | C221  | 2.818(19) | . | .     | no |
| H29   | C231  | 2.961(19) | . | .     | no |
| H29   | C232  | 2.74(2)   | . | .     | no |
| H29   | H219" | 2.35(3)   | . | .     | no |
| H29   | H133  | 2.53(3)   | . | .     | no |
| H29   | H219  | 2.24(3)   | . | .     | no |
| H29   | C133  | 2.99(2)   | . | .     | no |
| H29   | C219  | 2.49(2)   | . | .     | no |
| H29   | C220  | 2.83(2)   | . | .     | no |
| H111  | C119  | 2.50(2)   | . | .     | no |
| H111  | H119" | 2.36(3)   | . | .     | no |
| H111  | H119  | 2.26(3)   | . | .     | no |
| H111  | O23   | 2.57(2)   | . | 4_555 | no |
| H112  | C114  | 2.938(18) | . | .     | no |
| H112  | O12   | 2.571(18) | . | .     | no |
| H116  | C114  | 2.94(3)   | . | .     | no |
| H116  | H117" | 2.57(3)   | . | .     | no |
| H116  | O11   | 2.45(3)   | . | .     | no |
| H116  | H12   | 2.55(3)   | . | 3_656 | no |
| H117  | H118" | 2.53(3)   | . | .     | no |
| H117  | H225  | 2.58(3)   | . | 3_656 | no |
| H118  | H116" | 2.49(3)   | . | .     | no |
| H119  | H111  | 2.26(3)   | . | .     | no |
| H119  | C111  | 2.77(3)   | . | .     | no |
| H121  | H15   | 2.06(3)   | . | .     | no |
| H121  | C15   | 2.592(19) | . | .     | no |
| H121  | C16   | 2.908(18) | . | .     | no |
| H121  | C230  | 2.845(18) | . | 1_455 | no |
| H121  | C231  | 2.884(18) | . | 1_455 | no |
| H122  | H133' | 2.45(3)   | . | .     | no |
| H122  | H216" | 2.54(3)   | . | 1_455 | no |
| H122  | C214  | 3.05(2)   | . | 1_455 | no |
| H124  | O21   | 2.59(2)   | . | 1_455 | no |
| H125  | H127  | 2.40(3)   | . | .     | no |
| H125  | C110  | 3.07(2)   | . | 3_566 | no |

|      |       |           |   |       |    |
|------|-------|-----------|---|-------|----|
| H125 | C119  | 2.924(19) | . | 3_566 | no |
| H125 | O13   | 2.42(2)   | . | 3_566 | no |
| H127 | H125  | 2.40(3)   | . | .     | no |
| H128 | C24   | 2.85(2)   | . | 3_666 | no |
| H128 | C25   | 3.04(2)   | . | 3_666 | no |
| H130 | C17   | 2.87(2)   | . | .     | no |
| H130 | C18   | 2.43(2)   | . | .     | no |
| H130 | C19   | 2.938(19) | . | .     | no |
| H130 | C113  | 2.69(2)   | . | .     | no |
| H130 | C222  | 3.02(2)   | . | .     | no |
| H130 | C120  | 2.97(2)   | . | .     | no |
| H133 | C132  | 3.05(2)   | . | .     | no |
| H133 | C220  | 2.92(3)   | . | .     | no |
| H133 | C123  | 3.10(2)   | . | .     | no |
| H133 | H222' | 2.51(3)   | . | .     | no |
| H133 | H29   | 2.53(3)   | . | .     | no |
| H133 | C222  | 3.06(2)   | . | .     | no |
| H211 | H118" | 2.43(3)   | . | 4_554 | no |
| H212 | O22   | 2.523(19) | . | .     | no |
| H212 | C214  | 3.00(2)   | . | .     | no |
| H212 | H225  | 2.55(3)   | . | 2_655 | no |
| H216 | O21   | 2.44(3)   | . | .     | no |
| H216 | C214  | 2.90(3)   | . | .     | no |
| H216 | H217" | 2.52(4)   | . | .     | no |
| H217 | H218" | 2.51(4)   | . | .     | no |
| H218 | H216" | 2.51(4)   | . | .     | no |
| H219 | C29   | 2.62(2)   | . | .     | no |
| H219 | H29   | 2.24(3)   | . | .     | no |
| H221 | C25   | 2.65(2)   | . | .     | no |
| H221 | C26   | 2.96(2)   | . | .     | no |
| H221 | C130  | 2.84(2)   | . | .     | no |
| H221 | C131  | 2.945(19) | . | .     | no |
| H221 | H25   | 2.02(3)   | . | .     | no |
| H222 | O12   | 2.71(2)   | . | .     | no |
| H222 | C114  | 2.81(2)   | . | .     | no |
| H222 | H116" | 2.40(3)   | . | .     | no |
| H222 | H233' | 2.51(3)   | . | .     | no |
| H224 | O11   | 2.43(2)   | . | .     | no |
| H224 | C114  | 3.06(2)   | . | .     | no |
| H224 | H117" | 2.54(3)   | . | 3_656 | no |
| H225 | H227  | 2.45(3)   | . | .     | no |
| H225 | H212  | 2.55(3)   | . | 2_645 | no |
| H225 | C117  | 3.01(2)   | . | 3_656 | no |
| H225 | H117  | 2.58(3)   | . | 3_656 | no |
| H227 | H225  | 2.45(3)   | . | .     | no |
| H227 | C212  | 2.99(2)   | . | 2_645 | no |
| H230 | C27   | 2.841(18) | . | .     | no |
| H230 | C28   | 2.462(18) | . | .     | no |
| H230 | C29   | 2.996(18) | . | .     | no |
| H230 | C122  | 2.948(18) | . | 1_655 | no |
| H230 | C213  | 2.733(19) | . | .     | no |
| H230 | C220  | 2.954(18) | . | .     | no |
| H230 | H122' | 2.57(3)   | . | 1_655 | no |
| H233 | C17   | 3.05(3)   | . | 1_655 | no |
| H233 | C120  | 2.84(3)   | . | 1_655 | no |
| H233 | C223  | 3.07(2)   | . | .     | no |
| H233 | C232  | 3.05(2)   | . | .     | no |

loop\_  
\_geom\_hbond\_atom\_site\_label\_D  
\_geom\_hbond\_atom\_site\_label\_H

\_geom\_hbond\_atom\_site\_label\_A  
 \_geom\_hbond\_distance\_DH  
 \_geom\_hbond\_distance\_HA  
 \_geom\_hbond\_distance\_DA  
 \_geom\_hbond\_angle\_DHA  
 \_geom\_hbond\_site\_symmetry\_A  
 \_geom\_hbond\_publ\_flag

| # | #D   | H | A     | D - H | H...A     | D...A     | D - H...A | symm(A)   |       |     |
|---|------|---|-------|-------|-----------|-----------|-----------|-----------|-------|-----|
| # |      |   |       |       |           |           |           |           |       |     |
|   | C117 |   | H117" | O11   | 0.98(2)   | 2.59(2)   | 3.087(3)  | 111.7(15) | .     | yes |
|   | C117 |   | H117" | O11   | 0.98(2)   | 2.55(2)   | 3.410(3)  | 147.5(15) | 3_656 | yes |
|   | C12  |   | H12   | O11   | 0.942(19) | 2.375(19) | 2.854(3)  | 111.1(15) | .     | yes |
|   | C217 |   | H217" | O21   | 1.04(3)   | 2.45(3)   | 3.024(3)  | 113.4(18) | .     | yes |
|   | C219 |   | H219' | O21   | 1.03(2)   | 2.39(2)   | 3.240(3)  | 138.8(16) | 2_645 | yes |
|   | C22  |   | H22   | O21   | 0.96(2)   | 2.504(19) | 2.873(3)  | 103.0(14) | .     | yes |
|   | C111 |   | H111  | O23   | 0.98(2)   | 2.57(2)   | 3.491(3)  | 156.0(14) | 4_555 | yes |
|   | C116 |   | H116  | O11   | 1.00(2)   | 2.45(3)   | 2.933(3)  | 109.5(18) | .     | yes |
|   | C124 |   | H124  | O21   | 0.94(2)   | 2.59(2)   | 3.473(3)  | 155.6(17) | 1_455 | yes |
|   | C125 |   | H125  | O13   | 0.98(2)   | 2.42(2)   | 3.306(3)  | 150.4(15) | 3_566 | yes |
|   | C216 |   | H216  | O21   | 1.00(2)   | 2.44(3)   | 2.957(3)  | 111.5(19) | .     | yes |
|   | C224 |   | H224  | O11   | 1.00(2)   | 2.43(2)   | 3.333(3)  | 150.5(15) | .     | yes |

#===END of Crystallographic Information File